PRICE 10 CENTS

ROYSTER'S
1946
ALMANAC

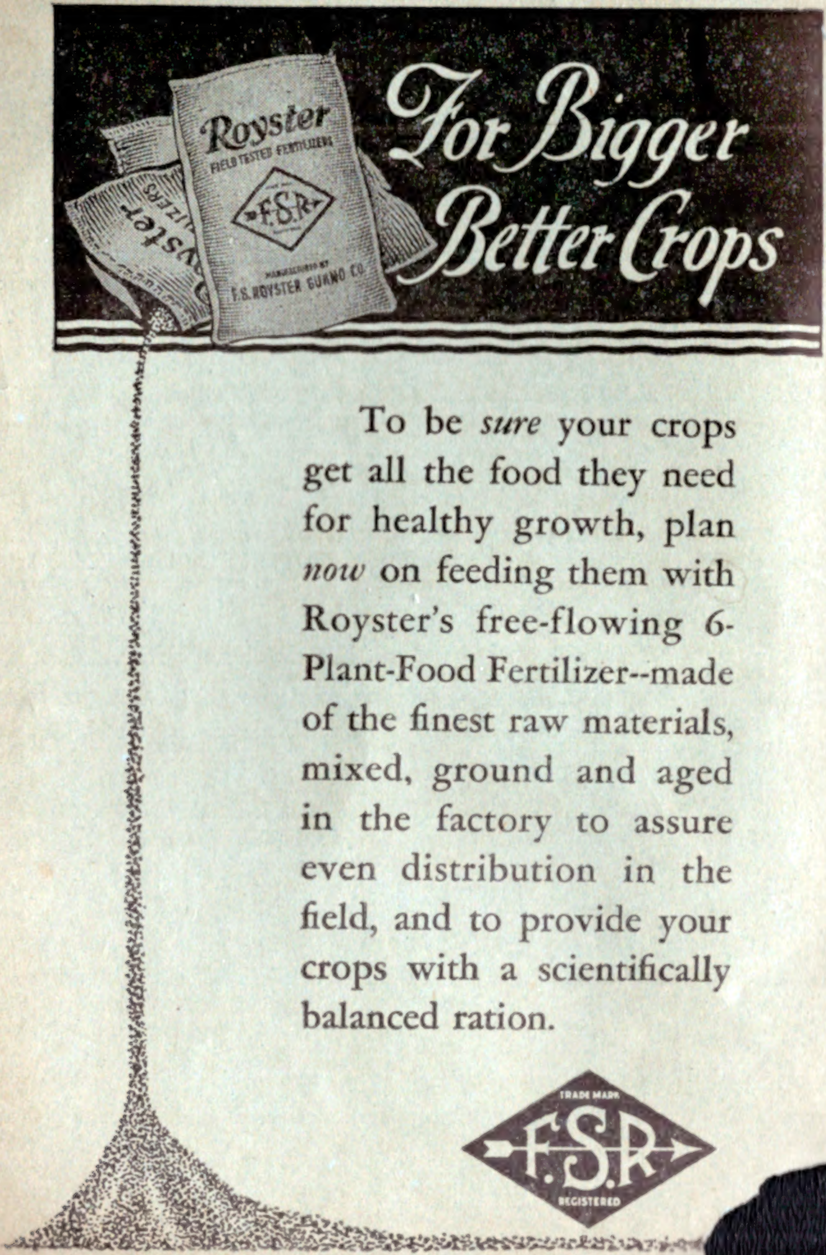
SIXTY-FIRST YEAR EDITION

TRADE MARK
F.S.R
REGISTERED

Published by

F. S. ROYSTER GUANO CO.

NORFOLK, VIRGINIA



For Bigger Better Crops

To be *sure* your crops get all the food they need for healthy growth, plan *now* on feeding them with Royster's free-flowing 6-Plant-Food Fertilizer--made of the finest raw materials, mixed, ground and aged in the factory to assure even distribution in the field, and to provide your crops with a scientifically balanced ration.

TRADE MARK
F.S.R
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F. S. ROYSTER GUANO COMPANY

Fertilizers and Chemicals

C. F. BURROUGHS,
PRESIDENT & TREASURER

NORFOLK, VIRGINIA

January 1, 1946

Dear Friend:

Once more it is my pleasant privilege to greet you at the beginning of a new year. It is an old Royster custom and a happy occasion for me.

In numerous ways 1946 promises to be a year of confusion and uncertainty. About many things we can only guess at this time, but one thing we know for sure -- it must be another year of "abundant production" on the farm front.

And right now, as the new year starts, is a good time to remember that the mineral storehouse of the soil is the key to crop production. Crops grow upon the land and depend upon the soil storehouse to satisfy an important part of the plant food needs.

It takes a bountiful supply of many plant foods to keep the farm factory running at full speed. Seeds must germinate and grow in a well stocked cupboard for crops cannot "pull up stake" and move to another place when the going gets tough.

Some quantity of each and every mineral needed by growing crops is always to be found in the soil storehouse -- some, but often not enough. And this is where a good fertilizer like Royster's fits into the picture.

Fertilizer is plant food, the grub-stake of growing crops. Every bag of Royster's is chock-full of crop producing power -- ready to remedy soil shortages and to take care of crop needs. It is this continual bringing in of extra plant foods in the fertilizer bag that makes it possible to continue to take big crops off the land season after season.

The liberal use of good fertilizer like Royster's again this season will do more than any other one thing to bring the "abundant production" we need so badly. Bigger yields from each acre make land, labor and machinery go farther.

Sincerely,

CFBurroughs

President

CALENDAR FOR 1946

MORNING AND EVENING STARS

Mercury will be Evening Star about March 9, July 5, October 31; and Morning Star about April 23, August 20 and December 9.

Venus will be Morning Star till February 1; then Evening Star till November 17; then Morning Star the rest of the year.

Jupiter will be Morning Star till April 12; then Evening Star till October 31; then Morning Star again the rest of the year.

THE TWELVE SIGNS OF THE ZODIAC.

THE RAM. Aries, ♈ HEAD & FACE.

TWINS. Gemini. The Arms.	♊	♉	**BULL.** Taurus. The Neck.
LION. Leo. The Heart.	♌	♋	**CRAB.** Cancer. The Breast.
BALANCE. Libra. The Reins.	♎	♍	**VIRGIN.** Virgo. The Bowels.
ARCHER. Sagittarius. The Thighs.	♐	♏	**SCORPION.** Scorpio. The Loins.
WATERMAN. Aquarius. The Legs.	♒	♑	**GOAT.** Capricornus The Knees.

FISHES. Pisces. ♓ THE FEET.

ECLIPSES—Standard Time

In the year 1946 there will be six eclipses, four of the Sun and two of the Moon.

I. A Partial Eclipse of the Sun, January 3. Invisible to North America. Visible to Antarctica.

II. A Partial Eclipse of the Sun, May 30. Invisible to North America. Visible to the South Pacific Ocean and the western part of southern South America.

III. A Total Eclipse of the Moon, June 14. Invisible to North America. The beginning visible generally in Antarctica, New Zealand, Australia, the central and western part of the Pacific Ocean, Asia except the extreme northern and northeastern parts, the Indian Ocean, northeastern Europe and southern and eastern Africa; ending visible generally in Antarctica, Australia, Asia except the northeastern part, the Indian Ocean, Europe, Africa, the South Atlantic Ocean and the extreme eastern part of South America.

IV. A Partial Eclipse of the Sun, June 29. Invisible to North America. Visible to Norway, Sweden and northern Russia.

V. A Partial Eclipse of the Sun, November 23. Visible to the United States except the southwestern portion, the extreme northern part of South America and the Atlantic Ocean.

VI. A Total Eclipse of the Moon, December 8. Invisible to the United States. The beginning visible generally in the Arctic Ocean, the northwestern part of North America, the northern and western part of the Pacific Ocean, New Zealand, Australia, Asia, Europe except the extreme southwestern part, the Indian Ocean and the eastern part of Africa; the ending visible generally in the extreme northwestern part of North America, the Arctic Ocean, the western part of the Pacific Ocean, Australia except the extreme southeastern part, the Indian Ocean, Asia, Europe, Africa and the eastern part of the Atlantic Ocean.

Conway, N. C., July 11, 1945

Royster's is unsurpassed for its crop producing qualities! Last year I made 1027 lbs. of cotton to the acre on 24 acres. Despite the unfavorable weather at planting time, my 28 acres of cotton this year are going to produce another fine crop. I used Royster Kingfish under both crops—500 lbs. to the acre. Royster's always comes in such excellent mechanical condition, too—it drills so nice and evenly. E. T. VICK

1946

January

1946

☾PHASES	BOSTON	NEWYORK	WASH'TON
	D H M	H M	H M
N. M.	3 7 30 M	7 30 M	7 30 M
F. Q.	10 3 27 A	3 27 A	3 27 A
F M.	17 9 46 M	9 46 M	9 46 M
L. Q.	25 0 0 M	0 0 M	0 0 M

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES			SUN SLOW	LATITUDE OF MIDDLE STATES			LATITUDE OF SOUTHERN STATES		
				Sun rises	Sun sets	Moon rises		Sun rises	Sun sets	Moon rises	Sun rises	Sun sets	Moon rises
				H M	H M	H M	M	H M	H M	H M	H M	H M	H M
1	T	*New Year's Day* *Circumcision*	♏	7 30	4 38	5 47	4	7 24	4 43	5 42	7 3	5 5	5 21
2	W	Georgia admitted to Union, 1788	♐	7 30	4 39	6 45	4	7 25	4 44	6 39	7 3	5 5	6 17
3	T	Battle of Princeton, N.J., 1777	♐	7 30	4 39	sets	5	7 25	4 44	sets	7 3	5 6	sets
4	F	Utah admitted as state, 1896	♐	7 30	4 40	5 48	5	7 25	4 45	5 53	7 3	5 7	6 17
5	S	Pres. Van Buren born, 1782	♑	7 30	4 41	6 52	5	7 25	4 46	6 57	7 3	5 8	7 18
1. Epiphany Sunday				**Day's Length—9h. 12m.—9h. 22m.—10h. 5m.**									
6	S	*Epiphany* Theo. Roosevelt d., '19	♑	7 30	4 42	8 0	6	7 25	4 47	8 4	7 3	5 8	8 21
7	M	Pres. Millard Filmore born, 1800	♒	7 30	4 43	9 9	6	7 25	4 48	9 12	7 4	5 9	9 24
8	T	Battle of New Orleans, La., 1815	♒	7 29	4 44	10 19	7	7 25	4 49	10 20	7 4	5 10	10 27
9	W	First shot in Civil War, 1861	♓	7 29	4 45	11 29	7	7 25	4 50	11 29	7 4	5 11	11 31
10	T	Penny Postage in England, 1840	♓	7 29	4 46	morn	8	7 24	4 51	morn	7 4	5 12	morn
11	F	Alexander Hamilton born, 1757	♈	7 29	4 47	0 40	8	7 24	4 52	0 39	7 4	5 12	0 35
12	S	Slavery abolished in Mexico, 1825	♈	7 29	4 48	1 53	8	7 24	4 53	1 51	7 4	5 13	1 42
2. 1st Sunday after Epiphany				**Day's Length—9h. 21m.—9h. 30m.—10h. 11m.**									
13	S	Record blizzard in South, 1918	♉	7 28	4 49	3 7	9	7 24	4 54	3 3	7 3	5 14	2 49
14	M	Capitol in Wash. burned, 1801	♉	7 28	4 50	4 23	9	7 23	4 55	4 18	7 3	5 15	3 59
15	T	Fuelless Mondays began, 1918	♊	7 28	4 52	5 36	9	7 23	4 56	5 31	7 3	5 16	5 8
16	W	Prohibition Amendment, 1920	♊	7 27	4 53	6 42	10	7 22	4 58	6 36	7 3	5 17	6 13
17	T	Benj. Franklin born, 1706	♊	7 27	4 54	rises	10	7 22	4 59	rises	7 3	5 18	rises
18	F	Elec. trolley system pat., 1892	♋	7 26	4 55	6 9	10	7 21	5 0	6 14	7 2	5 19	6 34
19	S	Gen. Robt. E. Lee born, 1807	♋	7 25	4 56	7 18	11	7 21	5 1	7 22	7 2	5 20	7 38
3. 2nd Sunday after Epiphany				**Day's Length—9h. 33m.—9h. 42m.—10h. 19m.**									
20	S	American Revolution ends, 1783	♌	7 25	4 58	8 25	11	7 20	5 2	8 27	7 2	5 21	8 39
21	M	Nickolai Lenin died, 1924	♌	7 24	4 59	9 31	11	7 20	5 3	9 32	7 1	5 21	9 39
22	T	Queen Victoria died, 1901	♍	7 23	5 0	10 34	12	7 19	5 4	10 34	7 1	5 22	10 36
23	W	Big Kansas City fire, 1923	♍	7 23	5 1	11 34	12	7 19	5 6	11 33	7 1	5 23	11 31
24	T	Discover Gold in California, 1848	♍	7 22	5 3	morn	12	7 18	5 7	morn	7 0	5 24	morn
25	F	*Conversion of St. Paul*	♎	7 21	5 4	0 34	12	7 17	5 8	0 32	7 0	5 25	0 25
26	S	Michigan admitt. to Union, 1837	♎	7 21	5 5	1 34	13	7 16	5 9	1 31	6 59	5 26	1 20
4. 3rd Sunday after Epiphany				**Day's Length—9h. 46m.—9h. 54m.—10h. 28m.**									
27	S	Edison lamp patent, 1880	♏	7 20	5 6	2 35	13	7 16	5 10	2 31	6 59	5 27	2 16
28	M	Paris surrendered, 1871	♏	7 19	5 8	3 3[illegible]	13	7 15	5 12	3 30	6 58	5 28	3 11
29	T	Kansas admitted to Union, 1861	♏	7 18	5 9	4 34	13	7 14	5 13	4 29	6 58	5 29	4 7
30	W	Franklin D. Roosevelt b., 1882	♐	7 17	5 10	5 31	13	7 13	5 14	5 25	6 57	5 30	5 2
31	T	Cape Hope discovered, 1616	♐	7 17	5 12	6 23	14	7 12	5 15	6 17	6 57	5 31	5 54

Weather Predictions—1-5, rain or snow; 6-8, high winds; 9-12, stormy conditions; 13-17, windy; 18-22, stormy; 23-26, cloudy; 27-31, generally unsettled.

NEW MOON

3rd

FIRST QUAR.

10th

FULL MOON

17th

LAST QUAR.

24th

MAKE SURE YOUR LADDER IS SAFE

Ladders should be of sound material, straight grained, free from knots or other defects. Replace broken or badly worn rungs immediately.

If used on hard, smooth surfaces, nail pieces of rubber or other adhesive material to the foot to prevent slipping; or, station someone at the foot to hold ladder steady.

Ladders permanently located should be fastened securely at both top and bottom. The top should project at least 4 ft. above the landing to which it leads. Always prop or brace a long ladder at the middle, to prevent bend or sway; unusually long ladders should be braced at intervals of 10 to 12 ft.

Ladders that are nailed to a wall should stand at least 8 in. from the wall to allow room for firm footing on the rungs.

Two ladders joined together to obtain additional reach should overlap at least 6 ft.; the spliced ends fastened substantially; the center of the combined span braced firmly to building or ground.

Broken or rickety ladders are a liability. Keep ladders in prime condition; discard those which are rotting or which cannot be repaired.

Don't sacrifice the free use of both hands because you have a load to carry. A firm grip on side rails means a better grip on safety. Lifting heavy weights by rope or block and tackle is the sensible way.

Don't lean a ladder against a tree limb while sawing off the limb.

Don't climb a ladder that leans against hay or grain or other shifting material unless that ladder is first secured in place.

Always descend a ladder with your face toward the ladder. And be sure to remove all projecting nails and splinters from sides and rungs.

WORRIED ABOUT SAND WIREWORMS?

The sand wireworm is a serious pest of corn, cotton, cowpeas, potatoes and other crops in certain areas of the costal plain of South Carolina; also, at times, in parts of Illinois, Louisiana, Mississippi, Florida, Georgia and North Carolina. It is found in porous, light, sandy soils, which are usually deficient in humus.

Land planted in susceptible crops for two or more years may quickly build up a large wireworm infestation. Hence it is important to use a crop-planting plan that will avoid this danger and at the same time build up soil fertility. Two plans have been suggested by the United States Department of Agriculture, namely—

(1) When the land is heavily infested with wireworms, the following two-year cropping plan should reduce losses from wireworms:

First Year—Starting in the fall, sow a cover crop of small grain such as oats or rye. After harvesting the grain in the spring, let the land lie idle until about July 10, when sweetpotatoes, a cover crop, or hay can be planted. Late in the fall, plant a winter cover crop such as Austrian winter peas or vetch.

Second Year—Early in the spring of the second year, turn under the winter cover crop and plant the land to corn, cotton or other crop susceptible to wireworm injury. Immediately after harvest of the susceptible crop, seed the land to oats or rye, beginning again the first year of the two-year planting plan.

(2) When the wireworm infestation is known to be light, the following three-year cropping plan may often be used to advantage:

First and Second Years—Use the two-year plan for the first two years. After the susceptible crop is harvested in the fall of second year, plant a winter cover crop of Austrian winter peas or vetch.

Third Year—Turn under the cover crop early in the spring and plant the land to one of the crops less susceptible to wireworm injury, such as velvetbeans, tomatoes or early watermelons. As soon as this crop is harvested, seed the land with a winter cover crop of oats or rye, beginning again the first year of the three-year cropping plan.

PLAY SAFE—GROUND WIRE FENCE

Many cattle are killed by lightning carried along a fence. In areas subjected to frequent thunderstorms it is an excellent practice to ground the fence line about every 40 rods, particularly in fence corners where cattle are inclined to collect.

Grounding a wire fence in the vicinity of high-voltage power lines is a safety precaution that should not be neglected.

When steel posts are used, the fence is automatically grounded. The best way to ground a fence on wood posts is to insert steel posts or pipes at intervals along a line. The single wire sometimes stapled vertically to the post is short-lived and generally useless as a lightning conductor.

R2, Center Point, Ind., June 25, 1945

Royster's sure produces fine crops for me—whether the seasons be wet or dry. I harvested from one of my fields last year an average of 120 bus. corn per acre. In spite of an extremely wet spring this year, I have an exceptionally good clover crop; and my wheat, it looks like I'm going to get a top yield for this community. The wonderful results I've received from Royster's and its perfect drilling condition have been most gratifying.

BOB MOORE

1946

February

1946

☾ PHASES	BOSTON D H M		NEWYORK H M		WASH'TON H M	
N. M.	1 11 43	A	11 43	A	11 43	A
F. Q.	8 11 28	A	11 28	A	11 28	A
F. M.	15 11 28	A	11 28	A	11 28	A
L. Q.	23 9 36	A	9 36	A	9 36	A

D M	D W	Historical Events	MOON'S SIGNS	Northern States Sun rises H M	Northern States Sun sets H M	Northern States Moon sets H M	SUN SLOW M	Middle States Sun rises H M	Middle States Sun sets H M	Middle States Moon sets H M	Southern States Sun rises H M	Southern States Sun sets H M	Southern States Moon sets H M
1	F	Victor Herbert born, 1859	♑	7 15	5 13	4 39	14	7 11	5 17	4 44	6 56	5 32	5 6
2	S	*Purification—Candlemas*	♑	7 14	5 14	5 48	14	7 10	5 18	5 52	6 55	5 33	6 10

5. 4th Sunday after Epiphany — **Day's Length—10h. 3m.—10b. 9m.—10h. 39m.**

D M	D W	Historical Events	MOON'S SIGNS	Northern States Sun rises H M	Northern States Sun sets H M	Northern States Moon sets H M	SUN SLOW M	Middle States Sun rises H M	Middle States Sun sets H M	Middle States Moon sets H M	Southern States Sun rises H M	Southern States Sun sets H M	Southern States Moon sets H M
3	S	Income Tax a Law, 1913	♒	7 13	5 16	6 58	14	7 10	5 19	7 1	6 55	5 34	7 15
4	M	Charles Lindbergh born, 1902	♒	7 12	5 17	8 9	14	7 9	5 20	8 11	6 54	5 35	8 19
5	T	Roger Williams landed; 1631	♓	7 11	5 18	9 20	14	7 7	5 22	9 21	6 53	5 36	9 23
6	W	Aaron Burr, statesman, b., 1756	♓	7 10	5 19	10 32	14	7 6	5 23	10 31	6 52	5 37	10 29
7	T	Charles Dickens born, 1812	♓	7 9	5 21	11 44	14	7 5	5 24	11 42	6 52	5 38	11 35
8	F	Wm. Tecumseh Sherman b.,'20	♈	7 7	5 22	morn	14	7 4	5 25	morn	6 51	5 38	morn
9	S	Wm. H. Harrison born, 1773	♈	7 6	5 23	0 57	14	7 3	5 26	0 54	6 50	5 39	0 41

6. 5th Sunday after Epiphany — **Day's Length—10h. 20m.—10h. 26m.—10h. 51m.**

D M	D W	Historical Events	MOON'S SIGNS	Northern States Sun rises H M	Northern States Sun sets H M	Northern States Moon sets H M	SUN SLOW M	Middle States Sun rises H M	Middle States Sun sets H M	Middle States Moon sets H M	Southern States Sun rises H M	Southern States Sun sets H M	Southern States Moon sets H M
10	S	Canada ceded to England, 1763	♉	7 5	5 25	2 11	14	7 2	5 28	2 7	6 49	5 40	1 49
11	M	Thomas A. Edison born, 1847	♉	7 4	5 26	3 22	14	7 1	5 29	3 17	6 48	5 41	2 55
12	T	Abraham Lincoln born, 1809	♊	7 2	5 27	4 29	14	7 0	5 30	4 23	6 47	5 42	4 0
13	W	University of N. C. opened, 1795	♊	7 1	5 29	5 29	14	6 58	5 31	5 23	6 46	5 43	5 0
14	T	*St. Valentine day*	♋	6 59	5 30	6 18	14	6 57	5 32	6 13	6 46	5 44	5 52
15	F	Susan B. Anthony born, 1820	♋	6 58	5 31	rises	14	6 56	5 34	rises	6 45	5 45	rises
16	S	House pass Johnson Bill, 1929	♌	6 57	5 32	6 7	14	6 54	5 35	6 10	6 44	5 46	6 24

7. Septuagesima Sunday — **Day's Length—10h. 38m.—10h. 43m.—11h. 4m.**

D M	D W	Historical Events	MOON'S SIGNS	Northern States Sun rises H M	Northern States Sun sets H M	Northern States Moon sets H M	SUN SLOW M	Middle States Sun rises H M	Middle States Sun sets H M	Middle States Moon sets H M	Southern States Sun rises H M	Southern States Sun sets H M	Southern States Moon sets H M
17	S	Rome annexed to France, 1810	♌	6 56	5 34	7 13	14	6 53	5 36	7 15	6 43	5 47	7 23
18	M	Jeff. Davis inaugurated, 1861	♍	6 54	5 35	8 17	14	6 52	5 37	8 18	6 42	5 47	8 21
19	T	Ohio admitted to Union, 1803	♍	6 53	5 36	9 20	14	6 50	5 39	9 20	6 40	5 48	9 19
20	W	Fiume treaty with Italy rat., 1924	♍	6 51	5 37	10 22	14	6 49	5 40	10 20	6 39	5 49	10 15
21	T	Battle of Verdun began, 1915	♎	6 50	5 39	11 22	14	6 48	5 41	11 19	6 38	5 50	11 10
22	F	Florida ceded to U. S., 1819	♎	6 48	5 40	morn	14	6 46	5 42	morn	6 37	5 51	morn
23	S	U.S. troops at front, 1918	♏	6 47	5 41	0 22	14	6 45	5 43	0 18	6 36	5 52	0 4

8. Sexagesima Sunday — **Day's Length—10h. 58m.—11h. 2m.—11h. 17m.**

D M	D W	Historical Events	MOON'S SIGNS	Northern States Sun rises H M	Northern States Sun sets H M	Northern States Moon sets H M	SUN SLOW M	Middle States Sun rises H M	Middle States Sun sets H M	Middle States Moon sets H M	Southern States Sun rises H M	Southern States Sun sets H M	Southern States Moon sets H M
24	S	*St. Matthias*	♏	6 45	5 43	1 22	13	6 43	5 45	1 17	6 35	5 52	0 59
25	M	Bank of U. S. established, 1781	♏	6 44	5 44	2 22	13	6 42	5 46	2 16	6 34	5 53	1 56
26	T	Napoleon escaped from Elba, 1815	♐	6 42	5 45	3 20	13	6 40	5 47	3 14	6 33	5 54	2 51
27	W	Henry W. Longfellow born, 1807	♐	6 41	5 46	4 14	13	6 39	5 48	4 8	6 32	5 55	3 45
28	T	Deerfield, (Mass.) massacre, 1704	♑	6 39	5 47	5 2	13	6 38	5 49	4 57	6 31	5 56	4 34

Weather Predictions—1-4, very cold weather; 5-8, snow; 9-13, high winds; 14-17, cold weather; 18-22, cool with snow; 23-25, mild, little rain; 26-28, cold.

NEW MOON	FIRST QUAR.	FULL MOON	LAST QUAR.
1st	8th	15th	23rd

All ROYSTER Brands are Premium Quality—Reasonably Priced

STORE DRIED FRUITS IN TIGHT CONTAINERS

The use of tight containers, such as glass fruit jars provided with rubber rings, friction-top metal cans of various sizes, and moisture-vapor-tight containers made for use in freezing storage, will keep insects and mites from attacking dried fruits.

Fruits should be well dried and free of infestation before being sealed up.

Cylindrical paper cartons, such as those used for ice cream, have tight covers and also make suitable storage units for dried fruits. As an added precaution, the lids may be sealed with cellulose tape.

Heavy paper bags can be made insect-tight by gluing down the folds at the bottom and folding the top over several times before fastening it with paper clips.

Cloth bags cannot be depended on to exclude insects or mites during prolonged storage.

In storing dried fruits it should be borne in mind that newly hatched storage insects are very small and that some are able to enter crevices only one-eighth millimeter wide, or about five one-thousandths of an inch.

"HOUSE PLANTS" IN THE HOME

Success with house plants in a dwelling depends upon the wisdom used in selecting those that will thrive in the environment in which they are to be placed and with the care that they receive. Factors of environment that should be considered include intensity of the light, the temperature, humidity of the air and the possible presence in the room at times of traces of coal or illuminating gas. Factors limiting success with house plants include light coming from but one direction, excessive heat, too little atmospheric moisture and consequently the rapid loss of water from the plant itself. Flowering plants require more sunshine than do most plants grown primarily for their decorative foliage. Plants that are relatively inactive during the short days of winter require less light, moisture and air than do plants that are in active growth during this period.

Jardinieres to be useful must be watertight; however, drainage water in them must be removed to avoid keeping the roots of plants constantly immersed in water.

A good potting soil must be friable and light enough to permit excessive water to drain adequately from the container. It must have sufficient organic matter to retain a proper amount of moisture for the functioning of the plant. Avoid overrich soil as undue stimulation of the growth of house plants is not desirable.

Not all plants require repotting each year. Often all that is required is the replacement of the topsoil in the pot with some new fresh soil.

When watered, plants should receive a thorough soaking so that all the soil has adequate moisture. After thorough watering, additional water should be withheld until the soil becomes slightly dry.

Many house plants are benefited if they are set out-of-doors during the warm days of summer. Setting the pots entirely in soil keeps moisture more uniform within the pots and obviates frequent waterings.

CARE OF THE FAMILY COW

The cow should always be handled gently and quietly. Dogs should not be allowed to worry or chase her. See that all fences are well constructed so that the cow will not develop a habit of breaking through. If the cow is always where she belongs, there will be no occasion for chasing or running her. A fence made of four barbed wires, tightly stretched and fastened to good posts, will keep any ordinary cow in the cow lot.

The cow should be brushed daily, especially in the winter. Manure should not be allowed to cake on the flanks and thighs as so often happens with cows that are not groomed regularly, especially when they are confined in poorly constructed stalls with little bedding.

Most dairymen intend to have their cows freshen at about 12-month intervals and to have them dry for a month or 6 weeks before freshening. Ordinarily, this practice results in a greater yield of milk than a longer interval between calvings.

In milking see that the udder and flanks of the cow are free of any dirt that may drop into the milk pail. If necessary, wash any soiled parts. Wiping the udder and flanks with a damp cloth may be sufficient. Milk only with clean, dry hands. Use a small-top pail, milk with both hands, and draw the milk quickly with as little discomfort to the cow as possible. The finger nails should be kept short. Milk tubes or straws should not be inserted in the teats.

RFD, McLeod, Miss., July 7, 1945

I have been using Royster's for the past four years with the most satisfactory results. My cotton yields have been doubled since I started using it. And thanks to Royster's, on land where I formerly made only 15 to 18 bushels of corn per acre I now make from 40 to 50 bushels an acre.

J. R. SPARKMAN, JR.

1946 March 1946

☾PHASES	BOSTON D	H	M		NEW YORK H	M		WASH'TON H	M	
N. M.	3	1	1	A	1	1	A	1	1	A
F. Q.	10	7	3	M	7	3	M	7	3	M
F. M.	17	2	11	A	2	11	A	2	11	A
L. Q.	25	5	37	A	5	37	A	5	37	A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon rises H M	SUN SLOW M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon rises H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon rises H M
1	F	*St. David*	♑	6 38	5 49	5 44	12	6 36	5 50	5 39	6 30	5 57	5 19
2	S	Territory of Dakota formed, 1861	♑	6 36	5 50	6 22	12	6 35	5 51	6 18	6 28	5 57	6 2
9.		**Quinquagesima—Shrove Sunday**		**Day's Length—11h. 17m.—11h. 19m.—11h. 31m.**									
3	S	Alexander Graham Bell b., 1847	♒	6 34	5 51	sets	12	6 33	5 52	sets	6 27	5 58	sets
4	M	Coolidge Dam dedicated, 1930	♒	6 33	5 52	7 4	12	6 31	5 54	7 5	6 26	5 59	7 10
5	T	Dred Scott decision, 1857	♓	6 31	5 54	8 18	12	6 30	5 55	8 18	6 25	6 0	8 17
6	W	*Ash Wednesday*	♓	6 29	5 55	9 32	11	6 28	5 56	9 31	6 23	6 0	9 24
7	T	Luther Burbank born, 1849	♈	6 28	5 56	10 47	11	6 27	5 57	10 44	6 22	6 1	10 33
8	F	Pres. Wm. H. Taft died, 1930	♈	6 26	5 57	morn	11	6 25	5 58	11 58	6 21	6 2	11 42
9	S	Merrimac-Monitor battle, 1862	♉	6 24	5 58	0 2	11	6 24	5 59	morn	6 20	6 3	morn
10.		**1st Sunday in Lent**		**Day's Length—11h. 36m.—11h. 38m.—11h. 46m.**									
10	S	Elec. street cars in London, 1883	♉	6 23	5 59	1 15	10	6 22	6 0	1 10	6 18	6 4	0 49
11	M	Cuba ratify treaty, 1903	♊	6 21	6 1	2 23	10	6 20	6 1	2 17	6 17	6 4	1 54
12	T	Univ. of Arizona chartered., 1885	♊	6 19	6 2	3 24	10	6 19	6 2	3 18	6 16	6 5	2 55
13	W	*Ember day*	♋	6 18	6 3	4 17	10	6 17	6 3	4 11	6 14	6 6	3 49
14	T	Johann Strauss, comp. born, 1804	♋	6 16	6 4	5 0	9	6 15	6 5	4 55	6 13	6 7	4 36
15	F	*Ember day*	♌	6 14	6 5	5 35	9	6 14	6 6	5 31	6 12	6 7	5 16
16	S	*Ember day*	♌	6 12	6 6	6 4	9	6 12	6 7	6 1	6 11	6 8	5 51
11.		**2nd Sunday in Lent**		**Day's Length—11h. 57m.—11h. 57m.—12h. 0m.**									
17	S	*St. Patrick's Day*	♌	6 11	6 8	rises	9	6 11	6 8	rises	6 9	6 9	rises
18	M	Pres. Grover Cleveland b., 1837	♍	6 9	6 9	7 7	8	6 9	6 9	7 7	6 8	6 9	7 8
19	T	Nora Bayes died, 1928	♍	6 7	6 10	8 8	8	6 7	6 10	8 7	6 7	6 10	8 3
20	W	Patrick Henry's address, 1775	♎	6 6	6 11	9 9	8	6 6	6 11	9 7	6 6	6 11	8 59
21	T	*Spring Begins*	♎	6 4	6 12	10 11	7	6 4	6 12	10 8	6 4	6 12	9 55
22	F	Stamp Act passed, 1765	♎	6 2	6 13	11 12	7	6 2	6 13	11 8	6 3	6 12	10 51
23	S	House passed Bonus Bill, 1922	♏	6 0	6 14	morn	7	6 1	6 14	morn	6 2	6 13	11 46
12.		**3rd Sunday in Lent**		**Day's Length—12h. 16m.—12h. 16m.—12h. 14m.**									
24	S	Naturalization Act passed, 1790	♏	5 59	6 15	0 11	6	5 59	6 15	0 6	6 0	6 14	morn
25	M	*Annunciation*	♐	5 57	6 16	1 8	6	5 57	6 16	1 2	5 59	6 14	0 40
26	T	Sarah Bernhardt died, 1923	♐	5 55	6 18	2 3	6	5 56	6 17	1 57	5 58	6 15	1 34
27	W	Vera Cruz captured, 1847	♐	5 53	6 19	2 54	6	5 54	6 18	2 48	5 56	6 16	2 25
28	T	Crimean War began, 1854	♑	5 52	6 20	3 39	5	5 52	6 19	3 34	5 55	6 16	3 12
29	F	Pses. John Tyler born, 1790	♑	5 50	6 21	4 17	5	5 51	6 20	4 13	5 53	6 17	3 55
30	S	Russia cedes Alaska to U.S., 1867	♒	5 48	6 22	4 50	5	5 49	6 21	4 47	5 52	6 18	4 34
13.		**4th Sunday in Lent**		**Day's Length—12h. 37m.—12h. 35m.—12h. 27m.**									
31	S	Daylight saving in effect, 1918	♒	5 46	6 23	5 21	4	5 47	6 22	5 19	5 51	6 18	5 11

Weather Predictions—1-4, high winds; 5-7, cold, some snow; 8-11, unsettled; 12-16, changeable; 17-21, generally clear and cold; 22-26, cold and threatening; 27-31, cold.

NEW MOON

3rd

FIRST QUAR.

10th

FULL MOON

17th

LAST QUAR.

25th

Protect Your Investment—Use ROYSTER'S

CONTROL OF FLUE-CURED TOBACCO ROOT DISEASES BY CROP ROTATION

Since the control of different diseases requires for each a different type of crop rotation, the question naturally arises as to what to do for a combination of diseases. In actual practice, however, the question seldom does arise, except in limited areas, because one particular disease is almost always the major problem and this decides the type of rotation. Thus, if the major problem is root knot, a 3-year rotation with peanuts, crotalaria, oats or weeds is suggested; if bacterial wilt, a 3- or 4-year rotation with corn, cotton, soybeans and grasses is suggested, while peanuts and weeds should be avoided. Although both diseases are of widespread occurrence, they are not often serious on the same farm. Where both do occur, however, cultivation of cotton or corn or crotalaria for two years, followed by oats the third and tobacco the fourth year promises to be a successful rotation for the prevention of both. On thin, sandy lands crotalaria could be included after the oat crop. This same rotation extended over a 5-year period would also be a good cropping system where black shank, root knot and bacterial wilt are present in the same field. Since oats and crotalaria are more resistant to root knot than cotton or corn, one of the former should be grown immediately in advance of tobacco, especially where root knot is expected to be severe.

Another question that often arises is whether rotations shorter than the ones here recommended can be used. From the viewpoints both of controlling soil-borne diseases of flue-cured tobacco and of producing other profitable field crops, almost any rotation is superior to none. Thus, on root knot infected land, crop rotation with cotton is better than continuous cultivation of tobacco. Furthermore, alternation of tobacco and harvested peanuts may often give root knot control, but the longer rotations are more reliable. If the grower will plant his black shank infected land to other crops for only two or three years he may sometimes be benefited by this shorter rotation. The point is that the 5- to 6-year rotations recommended for black shank are the shortest that have been found reasonably safe under average conditions.

Again, many growers will soon be using black shank- and wilt-resistant varieties and it might be assumed that these will make rotation unnecessary. Preliminary results indicate that this is not true. The new varieties will be resistant but not immune, and they will permit rotations to be shortened but not dispensed with. In the case of black shank it may be practicable to use a resistant variety and a 3-year rotation and in the case of wilt a resistant variety and a 2-year rotation.

CLEAN ROOF BEFORE PAINTING

A roof should be thoroughly clean before painting.

If previous coats of paint have given unsatisfactory service, it will be necessary to remove all traces of the old paint before applying the new coat. Asphalt and tar can be removed with gasoline or benzine. Traces of old oil paints, if badly weathered, dry or chalky, should be removed with some of the water soluble paint removers which soften up the old paint so that it can be displaced by scraping, sanding, brushing or washing with soap and water.

If a water soluble paint remover is used, repainting should be delayed until the roof has been flushed with water and thoroughly dried.

Heating with a blow torch will loosen most kinds of paint so that it can be removed by scraping or brushed off with a wire brush.

Roofs should never be painted unless absolutely dry. You will get unsatisfactory results from attempting to paint just after a rain, or when there is dew on the roof. Wait until the sun has been shining long enough to drive off all moisture before you begin painting.

Furthermore, if it seems that a storm is approaching, painting should be discontinued so that the paint already applied may set.

Paint oils, when cold, will not penetrate as well as when warm. In order to get best bonding and good coverage metal should, therefore, be painted only when it is warm. Paint applied on cool, cloudy days does not spread evenly and does not cover as much roof area. — Agricultural Extension Bureau, Republic Steel Corp.

RFD, Avondale, Pa., June 26, 1945

I'm well pleased with the results I have received from Royster's during the 22 years it has been used on my farm. In addition to corn, wheat, barley, potatoes and beans, I also raise peas for canning. My 1944 and 1945 pea crops harvested over two tons to the acre. I find Royster's costs less in the end as you get a quality fertilizer that feeds the crop right on through to maturity.

HAROLD P. McCUE

1946

April

1946

PHASES	BOSTON D	BOSTON H	BOSTON M		NEW YORK H	NEW YORK M		WASH'TON H	WASH'TON M	
N. M.	1	11	37	A	11	37	A	11	37	A
F. Q.	8	3	4	A	3	4	A	3	4	A
F. M.	16	5	47	M	5	47	M	5	47	M
L. Q.	24	10	18	M	10	18	M	10	18	M

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN SLOW M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
1	M	*All Fool's Day*	♓	5 45	6 24	5 55	4	5 45	6 23	5 55	5 49	6 19	5 57
2	T	First U. S. Mint established, 1792	♓	5 43	6 26	7 11	4	5 44	6 24	7 10	5 48	6 20	7 6
3	W	Plane first over Mt. Everest, 1933	♈	5 41	6 27	8 28	3	5 42	6 26	8 26	5 47	6 21	8 16
4	T	First movie transm. by wire, 1928	♈	5 39	6 28	9 46	3	5 41	6 27	9 42	5 46	6 21	9 27
5	F	Swinburne born, 1837	♉	5 38	6 29	11 3	3	5 39	6 28	10 58	5 44	6 22	10 38
6	S	Peary discovered N. Pole, 1909	♉	5 36	6 30	morn	3	5 37	6 29	morn	5 43	6 23	11 47
14.		**5th Sunday in Lent**		**Day's Length—12h. 57m.—12h. 54m.—12h. 41m.**									
7	S	Italy invaded Albania, 1939	□	5 34	6 31	0 16	2	5 36	6 30	0 10	5 42	6 23	morn
8	M	Clay-Randolph duel, 1826	□	5 33	6 32	1 20	2	5 34	6 31	1 14	5 41	6 24	0 50
9	T	Lee surrendered to Grant, 1865	♋	5 31	6 33	2 15	2	5 32	6 32	2 9	5 39	6 25	1 46
10	W	George Arliss born, 1868	♋	5 29	6 34	3 0	1	5 31	6 33	2 55	5 38	6 26	2 34
11	T	Civil War began, 1861	♋	5 28	6 36	3 37	1	5 29	6 34	3 33	5 37	6 26	3 16
12	F	Henry Clay, statesman, b., 1777	♌	5 26	6 37	4 8	1	5 28	6 35	4 5	5 36	6 27	3 53
13	S	Thomas Jefferson born, 1743	♌	5 24	6 38	4 35	1	5 26	6 36	4 33	5 34	6 28	4 26
15.		**Palm Sunday**		**Day's Length—13h. 16m.—13h. 12m.—12h. 55m.**									
14	S	Lincoln assassinated, 1865	♍	5 23	6 39	4 59	0	5 25	6 37	4 58	5 33	6 28	4 55
15	M	Titanic sunk by Iceberg, 1912	♍	5 21	6 40	rises	0	5 23	6 38	rises	5 32	6 29	rises
16	T	Charles Chaplin born, 1889	♍	5 19	6 41	7 0	F.	5 21	6 39	6 58	5 31	6 30	6 52
17	W	First U. S. World War shot, 1917	♎	5 18	6 42	8 1	0	5 20	6 40	7 58	5 29	6 30	7 47
18	T	Paul Revere's heroic ride, 1775	♎	5 16	6 44	9 2	1	5 18	6 41	8 58	5 28	6 31	8 42
19	F	*Good Friday*	♏	5 15	6 45	10 2	1	5 17	6 42	9 57	5 27	6 32	9 37
20	S	West Virginia in Union, 1863	♏	5 13	6 46	11 1	1	5 15	6 43	10 56	5 26	6 33	10 33
16.		**Easter Sunday**		**Day's Length—13h. 35m.—13h. 30m.—13h. 8m.**									
21	S	Mark Twain died, 1910	♏	5 12	6 47	11 57	1	5 14	6 44	11 51	5 25	6 33	11 27
22	M	Spanish-Amer. war began, 1898	♐	5 10	6 48	morn	1	5 13	6 45	morn	5 24	6 34	morn
23	T	*St. George*	♐	5 8	6 49	0 48	2	5 11	6 46	0 42	5 22	6 35	0 18
24	W	First Newspaper in U.S., 1704	♑	5 7	6 50	1 34	2	5 10	6 47	1 28	5 21	6 36	1 6
25	T	*St. Mark*	♑	5 5	6 51	2 14	2	5 8	6 48	2 9	5 20	6 36	1 49
26	F	Lafayette joins U.S. Army, 1777	♒	5 4	6 52	2 49	2	5 7	6 49	2 45	5 19	6 37	2 30
27	S	Gen. U. S. Grant born, 1822	♒	5 2	6 53	3 20	2	5 5	6 50	3 17	5 18	6 37	3 7
17.		**Low Sunday**		**Day's Length—13h. 53m.—13h. 47m.—13h. 21m.**									
28	S	Pres. James Monroe born, 1758	♒	5 1	6 54	3 48	3	5 4	6 51	3 46	5 17	6 38	3 41
29	M	Richard Crocker died, 1922	♓	5 0	6 56	4 16	3	5 3	6 52	4 16	5 16	6 39	4 15
30	T	Washington inaugurated, 1789	♓	4 58	6 57	4 44	3	5 1	6 53	4 45	5 15	6 40	4 50

Weather Predictions—1-5, cloudy; 6-10, cold and threatening; 11-14, cloudy; 15-17, cloudy and rain; 18-21, cooler; 22-26, cool and pleasant; 27-30, generally cloudy.

NEW MOON

1st

FIRST QUAR.

8th

FULL MOON

16th

LAST QUAR.

24th

When ROYSTER'S Goes in the Bag—It's RIGHT!

FARM MECHANIC'S CORNER

Cut a hole in the bottom of a discarded pail, turn upside down and set the chicken mash pan into the hole, which should be cut large enough to fit the pan to keep it from being knocked off. This will keep the rats out and elevate the pan so the chickens cannot scratch litter into it.

The grinding wheel should turn against the cutting edge when grinding knives. The knife should be held at an angle to the wheel with moderate pressure, and moved slowly from side to side.

To tighten loose knob on dresser or work bench drawer, try wrapping some steel wool around the screw and screwing the knob back into place.

A number of pop bottle caps nailed to a paddle shaped piece of hardwood makes a dandy fish scaler. The cork should be removed from the caps before being nailed to the board.

To make a gasket for a union, place a sheet of gasket material over one end of the union and hammer lightly. Then cut around the hammer "markings" with a knife or pair of scissors.

To remove a rusted machine screw, put a few drops of oil on the screw, heat a long iron wire until red hot and hold it on the head of the screw for a minute or so. Then let the screw cool, adding more oil if all of it has evaporated. If, after it has become cold, the screw still refuses to loosen, reheat and apply more oil.

A few straight, medium-weight blows should be used in hammering down the end of a rivet. Heavy or too many blows causes the metal to stretch and buckle around the rivet.

Rope should be coiled in a clockwise direction in order to untwist the strands and prevent kinking. To take out of a coil, unwind it in a counter-clockwise direction. If rope starts to uncoil in a clockwise direction, turn coil over and pull the end up through the center from the other side.

To strengthen a wooden doubletree, try bolting a piece of strap iron or old buggy tire on the back of it.

When using a monkey wrench, always place the jaws of the wrench so they face the direction in which you are going to push or pull. Will save you some bruised knuckles.

To hold back that swinging door, try screwing a wooden knob to the door and a wire broom clamp where it will engage the knob.

To keep round logs from slipping when sawing them in a sawhorse, take an old crosscut saw and cut from it two equal pieces, boring four holes in each piece about 1½ inches from the teeth. Then nail the pieces onto the sawhorse so that the saw-teeth jut out far enough to grasp the log and keep it from slipping.

On cold, frosty days, when you find it is difficult to get a good grip on the fork or shovel handle while wearing gloves or mittens, try taping them with black friction or adhesive tape. You'll be able to get a much better grip.

Soaking paint spots on cement with a strong solution of ordinary washing soda will soften them so they can be easily removed.

Serviceable handles can be made for metal files from short lengths of one-inch pipe and wooden plugs. First, drive the wooden plugs into the pipe and then drive the improvised handles on the files.

The long wooden bar used to hold two large doors closed can be securely locked by drilling holes through the iron holders and the bar and then inserting iron pins into the holes. This prevents anyone from lifting the bar from the holders from the outside.

Pieces of flat iron bolted to the outside of the handles on a walking plow will not only strengthen the handles but will keep them from being rubbed thin when the plow is dragged on its side from one field to another.

When the metal tip has been accidentally pulled off the end of a shoestring, smear a "bit" of all-purpose cement on the string and give the fiber a twist. When dry the string can then be laced without any trouble.

Old auto hood fasteners when fastened onto a garbage can near the top will hold the top securely in place and keep the contents from spilling when the can is knocked over.

Tin wrapped around a tree about three feet above the ground will keep cats from climbing the tree and robbing that bird's nest.

R2, Waynesboro, Miss., July 3, 1945

Last year I planted 30 acres cotton, using 400 lbs. Royster's 5-10-5 to the acre, and ginned 30 500-lb. bales of cotton. This cotton brought me $115.00 an acre. Due to the wonderful mechanical condition of Royster's I never have any trouble getting an even distribution. Another thing, Royster's holds up my crops longer and gives me much better yields. I use Royster's under all of my crops every year.

D. E. WALKER

1946

May

1946

PHASES	BOSTON	NEW YORK	WASH'TON
N. M.	1 8 16 M	8 16 M	8 16 M
F. Q.	8 0 13 M	0 13 M	0 13 M
F. M.	15 9 52 A	9 52 A	9 52 A
L. Q.	23 11 2 A	11 2 A	11 2 A
N. M.	30 3 49 A	3 49 A	3 49 A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES			SUN FAST	LATITUDE OF MIDDLE STATES			LATITUDE OF SOUTHERN STATES		
				Sun rises H M	Sun sets H M	Moon sets H M	M	Sun rises H M	Sun sets H M	Moon sets H M	Sun rises H M	Sun sets H M	Moon sets H M
1	W	*St. Philip and St. James*	♈	4 57	6 58	7 20	3	5 0	6 54	7 17	5 14	6 41	7 5
2	T	Catherine the Great born, 1729	♈	4 55	6 59	8 40	3	4 59	6 55	8 36	5 13	6 41	8 18
3	F	First U. S. medical school, 1765	♉	4 54	7 0	9 57	3	4 58	6 57	9 52	5 12	6 42	9 30
4	S	Napoleon arrives at Elba, 1814	♉	4 53	7 1	11 8	3	4 56	6 58	11 2	5 11	6 43	10 38
18.		**2nd Sunday after Easter**		**Day's Length—14h. 11m.—14h. 4m.—13h. 33m.**									
5	S	Napoleon died, 1821	□	4 51	7 2	morn	3	4 55	6 59	morn	5 10	6 43	11 40
6	M	N.Y. Herald first published, 1835	□	4 50	7 3	0 10	3	4 54	7 0	0 4	5 9	6 44	morn
7	T	Pontiac Conspiracy, 1763	♋	4 49	7 5	1 0	4	4 53	7 1	0 55	5 8	6 45	0 33
8	W	Dante born, 1265	♋	4 48	7 6	1 40	4	4 51	7 2	1 35	5 7	6 46	1 17
9	T	Adm. Byrd over N. Pole., 1926	♌	4 46	7 7	2 12	4	4 50	7 3	2 9	5 6	6 46	1 55
10	F	Neth.-Belgium invaded, 1940	♌	4 45	7 8	2 40	4	4 49	7 4	2 38	5 6	6 47	2 29
11	S	Minnesota became a state, 1858	♍	4 44	7 9	3 4	4	4 48	7 5	3 3	5 5	6 48	2 58
19.		**3rd Sunday after Easter**		**Day's Length—14h. 27m.—14h. 19m.—13h. 44m.**									
12	S	*Mothers' Day*	♍	4 43	7 10	3 27	4	4 47	7 6	3 27	5 4	6 48	3 27
13	M	First Eng. settlement in Va., 1607	♍	4 42	7 11	3 49	4	4 46	7 7	3 50	5 3	6 49	3 55
14	T	Jenner 1st applied vacc'tion, 1796	♎	4 41	7 12	4 12	4	4 45	7 8	4 14	5 2	6 50	4 23
15	W	Air Mail Service inaug. 1918	♎	4 40	7 13	rises	4	4 44	7 9	rises	5 2	6 51	rises
16	T	Balzac born, 1889	♏	4 39	7 14	7 55	4	4 43	7 10	7 50	5 1	6 51	7 32
17	F	Money order plan estab., 1864	♏	4 38	7 15	8 55	4	4 42	7 11	8 50	5 0	6 52	8 28
18	S	First Day Jewish Pentecost	♏	4 37	7 16	9 52	4	4 41	7 12	9 46	5 0	6 53	9 23
20.		**4th Sunday after Easter**		**Day's Length—14h. 41m.—14h. 33m.—13h. 55m.**									
19	S	Amer. Revolution began, 1775	♐	4 36	7 17	10 46	4	4 40	7 13	10 40	4 59	6 54	10 15
20	M	Columbus died, 1506	♐	4 35	7 18	11 33	4	4 39	7 14	11 27	4 58	6 54	11 4
21	T	Amer. Red Cross founded, 1881	♑	4 34	7 19	morn	4	4 38	7 14	morn	4 58	6 55	11 47
22	W	First Union casualty, 1861	♑	4 33	7 20	0 13	3	4 38	7 15	0 8	4 57	6 56	morn
23	T	Captain Kidd executed, 1701	♑	4 32	7 21	0 48	3	4 37	7 16	0 44	4 57	6 56	0 26
24	F	Brooklyn Bridge opened, 1883	♒	4 31	7 22	1 20	3	4 36	7 17	1 17	4 56	6 57	1 4
25	S	Ralph W. Emerson born, 1803	♒	4 30	7 23	1 49	3	4 35	7 18	1 47	4 56	6 58	1 39
21.		**Rogation Sunday**		**Day's Length—14h. 54m.—14h. 44m.—14h. 3m.**									
26	S	Montana a territory, 1864	♓	4 30	7 24	2 15	3	4 35	7 19	2 14	4 55	6 58	2 11
27	M	John Calvin died, 1564	♓	4 29	7 25	2 41	3	4 34	7 20	2 41	4 55	6 59	2 44
28	T	Joseph W. Folk died, 1923	♈	4 28	7 26	3 9	3	4 33	7 21	3 11	4 54	7 0	3 19
29	W	Empress of Ireland sunk, 1914	♈	4 28	7 27	3 41	3	4 33	7 21	3 44	4 54	7 0	3 58
30	T	*Ascension Day Memorial Day*	♉	4 27	7 27	sets	3	4 32	7 22	sets	4 54	7 1	sets
31	F	Johnstown flood, 1889	♉	4 27	7 28	8 47	3	4 32	7 23	8 41	4 53	7 1	8 18

Weather Predictions—1-5, stormy period; 6-10, clear and pleasant; 11-13, clear and warm; 14-17, changeable; 18-22, cloudy and cool; 23-27, pleasant, 28-31, clear and pleasant.

NEW MOON

1st-30th

FIRST QUAR.

7th

FULL MOON

15th

LAST QUAR.

23rd

ROYSTER'S Brings Extra Crop Profits at Harvest Time

DON'T LET CONCRETE DRY TOO QUICKLY

After the concrete has been placed, care should be taken that it does not dry too quickly, and in hot weather it must be protected from the sun and from drying winds.

Exposed surfaces and objects made of dry mixtures should be sprayed thoroughly with water twice or oftener each day or otherwise kept moist for a week or ten days.

Materials commonly utilized for protecting concrete while curing are canvas, burlap, boards, layers of moist sand, and straw. These should be placed as soon as practicable without marring the concrete surface and be kept continuously moist.

Vertical surfaces are more difficult to protect than horizontal surfaces; forms left in place during the curing period afford good protection.

CLEAN AND OIL THAT HARNESS

Cleaning and oiling harness not only improves its appearance but adds life to it. Here's a program that has been recommended as a good one to follow when "house-cleaning" or overhauling harness:

First, remove all buckles, dees, loops, cockeyes, snaps and other parts which can be removed without cutting the stitching, rivets or straps. Then go over the harness carefully, making whatever repairs are necessary.

Now place all parts of the harness in a washtub filled about three-quarters full of warm water, to which has been added a handful of sal soda. After the harness has been thoroughly soaked, scrub with a scrubbing brush on a board (12 in. wide by 6 ft. long, with strips nailed to the sides) that has been placed with one end in the tub like a washboard and the other end on a stool, bench or other support so the water will drain from the board back into the tub. Spread paper on the floor and as each piece is cleaned, lay it by itself on the paper to dry.

It isn't necessary for the harness to be perfectly dry before applying the harness oil (the oil will "sink" in as the water dries out) but the harness oil should be warm when applied, either with a rag or similar "applier."

After the harness has been thoroughly oiled (one, two, three or four coats can be applied, depending on the condition of the harness), it should be allowed to dry overnight in a warm room. The following day, wipe off all the excess or remaining grease.

The next and last step—put some harness soap in a small dish and with a damp sponge apply the soap the same as when greasing. If harness dressing is used, follow carefully the directions found on the container.

The harness is now ready to be assembled and put into use.

BLEACHING DARK WOOD

To bleach wood that has darkened, apply a thin layer of calcium hypochlorate that has been mixed to a thin paste with water. After drying, moisten with a solution consisting of one part of hydrochloric acid and three parts of water. Allow a few hours for drying and then brush the wood clean. If it is still too dark, repeat the process.

WHAT'S "ATMOSPHERE"?

Atmosphere is a gaseous mixture that surrounds or envelopes the earth—sometimes likened to a great sea of gases at the bottom of which all of us exist.

Atmosphere consists of about 21% oxygen and 78% nitrogen by volume, the other 1% being made up of five other gases. Water vapor or water in a gaseous form is always present in the lower atmosphere—in a variable quantity, occupying space independently of other gases and may comprise up to 3% of the total weight of a given volume of air.

The earth's attraction overcomes the tendency for these gases to escape into space, and they rest upon the earth's surface with about the same weight as a layer of water 34 ft. in depth. Obeying the law of gases they also press in every other direction at sea level with a force of about 15 lbs. per square inch of surface. As these gases permeate our tissues their pressure is felt only when they are in motion as wind.

The density of air at sea level being only about one eight-hundredth part that of water, the atmosphere would be 800 times 34 ft.—about five miles in depth if it were of the same density at all altitudes, which it isn't. Being easily compressed the layers of gases near sea level have a greater density because they are compressed by the weight of what lies above. As the distance above sea level is increased this weight, of course, is decreased steadily by the amount of air left below—the pressure and density gradually diminishing to nothingness.

Claudville, Va., June 11, 1945

My experience with Royster's is that it does everything one could expect of a fine fertilizer. It's always in good drilling condition, and I know of no other fertilizer that will equal Royster's when it comes to producing quality crops. Last year my 11½ acres tobacco grown with Royster Bonanza, 1200 lbs. per acre, averaged 1500 lbs. of leaf to the acre. This tobacco sold for a per acre average of $650.00.

WALTER COX

Research and Field-Testing Keep ROYSTER'S in the Lead

1946

June

1946

PHASES	BOSTON D H M	NEW YORK H M	WASH'TON H M
F. Q.	6 11 6 M	11 6 M	11 6 M
F. M.	14 1 42 A	1 42 A	1 42 A
L. Q.	22 8 12 M	8 12 M	8 12 M
N. M.	28 11 6 A	11 6 A	11 6 A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN FAST M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
1	S	Tennessee admit. to Union, 1799	♊	4 26	7 29	9 55	2	4 31	7 24	9 49	4 53	7 2	9 24
22.		Sunday after Ascension		Day's Length—15h. 4m.—14h. 53m.—14h. 10m.									
2	S	1st execution by lethal gas, 19,0	♊	4 26	7 30	10 52	2	4 31	7 24	10 46	4 53	7 3	10 23
3	M	Duke of Windsor married, 1937	♋	4 25	7 30	11 38	2	4 30	7 25	11 33	4 52	7 3	11 13
4	T	Burgoyne died, 1792	♋	4 25	7 31	morn	2	4 30	7 26	morn	4 52	7 4	11 55
5	W	Socrates, philosopher, b., 469 B.C.	♌	4 24	7 32	0 15	2	4 30	7 27	0 11	4 52	7 4	morn
6	T	Battle of Belleau Wood, 1918	♌	4 24	7 33	0 45	2	4 29	7 27	0 42	4 52	7 5	0 31
7	F	British take Messines Ridge, 1917	♌	4 24	7 33	1 11	1	4 29	7 28	1 9	4 52	7 5	1 3
8	S	Robert Schumann born, 1810	♍	4 23	7 34	1 34	1	4 29	7 28	1 33	4 51	7 6	1 32
23.		Pentecost—Whit Sunday		Day's Length—15h. 12m.—15h. 0m.—14h. 15m.									
9	S	Norway surrendered, 1940	♍	4 23	7 35	1 55	1	4 29	7 29	1 56	4 51	7 6	1 59
10	M	Flood in Kansas, 1923	♎	4 23	7 35	2 17	1	4 28	7 30	2 19	4 51	7 7	2 27
11	T	Richard Strauss born, 1864	♎	4 22	7 36	2 41	1	4 28	7 30	2 44	4 51	7 7	2 57
12	W	*Ember day*	♎	4 22	7 36	3 7	0	4 28	7 31	3 11	4 51	7 8	3 28
13	T	Gen. Winfield Scott born, 1786	♏	4 22	7 37	3 36	0	4 28	7 31	3 41	4 51	7 8	4 1
14	F	*Ember day* *Flag Day*	♏	4 22	7 37	rises	S.	4 28	7 32	rises	4 51	7 8	rises
15	S	*Ember day*	♐	4 22	7 38	8 42	0	4 28	7 32	8 36	4 51	7 9	8 11
24.		Trinity Sunday		Day's Length—15h. 16m.—15h. 4m.—14h. 18m.									
16	S	Marlborough died, 1722	♐	4 22	7 38	9 31	0	4 28	7 32	9 25	4 51	7 9	9 1
17	M	Battle of Bunker Hill, 1775	♐	4 22	7 38	10 13	1	4 28	7 33	10 8	4 51	7 9	9 46
18	T	War declared against Eng., 1812	♑	4 22	7 39	10 51	1	4 28	7 33	10 46	4 51	7 10	10 28
19	W	Maximilian ex. in Mexico, 1867	♑	4 22	7 39	11 24	1	4 28	7 33	11 20	4 51	7 10	11 6
20	T	*Corpus Christi*	♒	4 23	7 39	11 52	1	4 28	7 34	11 49	4 52	7 10	11 40
21	F	⊙ *enters* ♋, *Summer begins*	♒	4 23	7 40	morn	2	4 28	7 34	morn	4 52	7 11	morn
22	S	Battle of Craney Island, 1863	♓	4 23	7 40	0 18	2	4 29	7 34	0 17	4 52	7 11	0 12
25.		1st Sunday after Trinity		Day's Length—15h. 17m.—15h. 5m.—14h. 19m.									
23	S	Penn treaty with Indians, 1683	♓	4 23	7 40	0 44	2	4 29	7 34	0 44	4 52	7 11	0 44
24	M	*St. John, Baptist*	♈	4 23	7 40	1 10	2	4 29	7 35	1 11	4 52	7 11	1 17
25	T	Custer Massacre, 1876	♈	4 24	7 40	1 38	2	4 29	7 35	1 40	4 53	7 11	1 52
26	W	First Amer. troops in France, 1917	♉	4 24	7 40	2 11	3	4 30	7 35	2 15	4 53	7 11	2 32
27	T	Battle of Gaines Mills, 1862	♉	4 24	7 40	2 50	3	4 30	7 35	2 55	4 53	7 11	3 16
28	F	World War began in Eur., 1914	♊	4 25	7 40	sets	3	4 30	7 35	sets	4 54	7 12	sets
29	S	*St. Peter and St. Paul*	♊	4 25	7 40	8 36	3	4 31	7 35	8 30	4 54	7 12	8 6
26.		2nd Sunday after Trinity		Day's Length—15h. 15m.—15h. 4m.—14h. 18m.									
30	S	Indian Terr. est. by Cong., 1834	♋	4 25	7 40	9 28	3	4 31	7 35	9 23	4 54	7 12	9 1

Weather Predictions—1-3, cool and changeable; 4-6, clear and warm; 7-11, clear and hot; 12-15, stormy period; 16-19, pleasant; 20-23, showers; 24-26, hot and sultry; 27-30, rain.

FIRST QUAR.

6th

FULL MOON

14th

LAST QUAR.

22nd

NEW MOON

28th

ROYSTER'S—The Finest Plant Food Money Can Buy

SOME "POINTERS" ON JUDGING A MULE

The general form and appearance of the mule should closely resemble that of a horse, and in judging mules the same general points of perfection are to be looked for. The nearer the mule approaches the ideal desired in a draft horse the more valuable he is from a market standpoint. In the mule there are certain characteristics derived from his paternal side which are mainly indicated in his bray, disposition, ears, tail and feet, aside from which the mule does not differ materially from the dam.

Mules vary in height from the little 12-hand pit mule to the large draft mules standing 17½ hands. The weight of mules ranges from 600 to 1,600 lbs. The average weight of the larger type of mules ranges between 1,150 and 1,400 lbs. and is the range of weight within which the majority of marketable mules are classified.

The form of the mule should be compact, with a deep body, broad chest, full flanks, short back and well-sprung ribs. Light, waspy flanks, long narrow bodies, and long backs are not desirable.

Quality is rather difficult to define but is that which every capable judge looks for in any animal. It is indicated in the mule by a trim, fine ear, clear-cut head and joints, flinty, flat bone, well-defined tendons and soft hair. Quality often marks the difference between a "market topper" and a "jar head." A short, thick ear, a coarse head, round, spongy bone and a hard coat of hair are indications of poor quality against which the judge should discriminate.

The natural tendency of the mule is to be lazy and obstinate. An active, energetic mule is therefore much desired.

It is in the hindquarters of the mule that the greatest faults of conformation are usually found. The croup is often very short and steep, the hips too sloping, the thighs too narrow, the bone too light and the hind legs sickle-shaped. These are faults of conformation that judges should discriminate against sharply. It is in the hindquarters and loins that the draft animal obtains propelling power. These portions of the animal, therefore, should be correctly built and properly developed.

The loins should be broad, short and thickly muscled; the croup long and level; the hips long, level and muscular; the thighs thick, long and well-muscled; and the hind legs well-set, with broad, clean-cut hocks and flat, dense bone. Also, the mule should stand on sound, well-shaped feet.

Although the mule is essentially a draft animal, it is often used for general-utility purposes, especially in the South. Style and action may not be as important qualities in a mule as they are in the light breeds of horses, but when present they add materially to its value. A smart, alert mule, with a long, free stride at the walk and a snappy, balanced trot is highly desired.

ENEMIES OF THE PEANUT

While certain diseases and insects cause more damage than is realized, fortunately, fairly effective control measures have been developed for some of these troubles.

Seed and seedling disease losses can be greatly reduced by seed treatment.

Leaf spot diseases and leafhoppers destroy foliage, reduce yield of peanuts, seriously reduce yield and quality of hay, and often necessitate abnormally early harvest. Experimental work has shown increases in yields of nuts up to 300 or 400 lbs. per acre or more from adequate dusting with sulfur or copper-sulfur dusts and from spraying with 4-4-50 bordeaux mixture.

In most areas the first dusting or spraying is given early in July, when the leaf spots or insect damage first appears. Two more applications at 10-day to 2-week intervals, depending on local and seasonal conditions, are generally recommended. If, however, rain removes the dust or spray within 24 hours of an application, the treatment should be repeated.

About 15 lbs. of dust per acre is enough for first application and about 20 lbs. for each of the later dates will be enough if uniformly applied with properly adjusted equipment. About 60 or 70 gallons of bordeaux spray per acre for the first application and about 100 gallons for each of the later two have been recommended.

Long rotations including crops less susceptible to southern root rot are recommended to help hold down losses from that disease, but no satisfactory control is known.

Petersburg, Mich., June 20, 1945

I've used Royster's on all my crops for ten years. I find it gives the best results of any I've ever used. My 27 acres wheat this year, fertilized with 200 lbs. of Royster's 2-12-6 per acre, looks like a 40-bus. an acre yield. Royster's always drills the same; it's so uniform that once you set your drill for Royster's you never have to change it. Give me Royster's for best results. HENRY STEUWE

1946

July

1946

☾PHASES	BOSTON D H M	NEWYORK H M	WASH'TON H M
F. Q.	6 0 15 M	0 15 M	0 15 M
F. M.	14 4 22 M	4 22 M	4 22 M
L. Q.	21 2 52 A	2 52 A	2 52 A
N. M.	28 6 53 M	6 53 M	6 53 M

				LATITUDE OF NORTHERN STATES				LATITUDE OF MIDDLE STATES			LATITUDE OF SOUTHERN STATES		
D M	D W	Historical Events	MOON'S SIGNS	Sun rises H M	Sun sets H M	Moon sets H M	SUN SLOW M	Sun rises H M	Sun sets H M	Moon sets H M	Sun rises H M	Sun sets H M	Moon sets H M
1	M	Dominion Day, Canada	♋	4 26	7 40	10 10	4	4 32	7 35	10 6	4 54	7 12	9 48
2	T	Pres. Garfield assassinated, 1881	♋	4 26	7 40	10 44	4	4 32	7 35	10 41	4 55	7 12	10 28
3	W	Idaho admitted to Union, 1890	♌	4 27	7 40	11 12	4	4 33	7 34	11 10	4 55	7 12	11 2
4	T	*Independence Day*	♌	4 27	7 40	11 37	4	4 33	7 34	11 36	4 56	7 12	11 33
5	F	Dominion of Canada est., 1868	♍	4 28	7 40	11 59	4	4 34	7 34	11 59	4 56	7 12	morn
6	S	John Paul Jones born, 1747	♍	4 29	7 39	morn	5	4 34	7 34	morn	4 57	7 11	0 1
27.		3rd Sunday after Trinity		Day's Length—15h. 10m.—14h. 59m.—14h. 14m.									
7	S	Merrimac heros released, 1898	♎	4 29	7 39	0 21	5	4 35	7 34	0 22	4 57	7 11	0 29
8	M	John D. Rockefeller born, 1839	♎	4 30	7 39	0 45	5	4 36	7 33	0 47	4 58	7 11	0 59
9	T	Braddock's defeat, 1755	♎	4 31	7 38	1 10	5	4 37	7 33	1 13	4 58	7 11	1 29
10	W	Wyoming admit. to Union, 1890	♏	4 31	7 38	1 38	5	4 37	7 33	1 42	4 59	7 11	2 2
11	T	Pres. John Quincy Adams b., 1767	♏	4 32	7 38	2 11	5	4 38	7 32	2 16	4 59	7 10	2 39
12	F	Hull's invasion of Canada, 1812	♐	4 33	7 37	2 50	5	4 38	7 32	2 56	5 0	7 10	3 21
13	S	Napoleon surrendered, 1815	♐	4 33	7 37	rises	6	4 39	7 31	rises	5 0	7 10	rises
28.		4th Sunday after Trinity		Day's Length—15h. 2m.—14h. 51m.—14h. 8m.									
14	S	French revolution, 1789	♐	4 34	7 36	8 12	6	4 40	7 31	8 6	5 1	7 9	7 44
15	M	*St. Swithin*	♑	4 35	7 35	8 52	6	4 40	7 30	8 47	5 1	7 9	8 27
16	T	Dist. of Columbia estab., 1790	♑	4 36	7 35	9 26	6	4 41	7 30	9 22	5 2	7 9	9 6
17	W	Franco-German War, 1870	♒	4 37	7 34	9 55	6	4 42	7 29	9 52	5 3	7 8	9 41
18	T	Wm. M. Thackeray b.. 1811	♒	4 38	7 34	10 22	6	4 43	7 29	10 20	5 3	7 8	10 14
19	F	First iron ship launched, 1843	♓	4 38	7 33	10 48	6	4 43	7 28	10 47	5 4	7 7	10 46
20	S	Mormons expel. from Sweden, '12	♓	4 39	7 32	11 13	6	4 44	7 27	11 14	5 5	7 7	11 18
29.		5th Sunday after Trinity		Day's Length—14h. 51m.—14h. 42m.—14h. 1m.									
21	S	First battle of Bull Run, 1861	♓	4 40	7 31	11 38	6	4 45	7 27	11 40	5 5	7 6	11 50
22	M	French submarine lost, 1927	♈	4 41	7 30	morn	6	4 46	7 26	morn	5 6	7 6	morn
23	T	Bunker Hill Monu. compl., 1841	♈	4 42	7 29	0 8	6	4 47	7 25	0 11	5 7	7 5	0 26
24	W	Canada discovered, 1534	♉	4 43	7 29	0 44	6	4 48	7 24	0 48	5 7	7 5	1 8
25	T	*St. James*	♉	4 44	7 28	1 27	6	4 49	7 23	1 32	5 8	7 4	1 56
26	F	N.Y. State rat. U.S. Consti., '88	♊	4 45	7 27	2 19	6	4 49	7 22	2 25	5 8	7 4	2 51
27	S	State Department est., 1789	♊	4 46	7 26	3 22	6	4 50	7 21	3 28	5 9	7 3	3 54
30.		6th Sunday after Trinity		Day's Length—14h. 38m.—14h. 30m.—13h. 52m.									
28	S	First official mail car, 1862	♋	4 47	7 25	sets	6	4 51	7 21	sets	5 10	7 2	sets
29	M	First Almanac printed, 1472	♋	4 48	7 24	8 41	6	4 52	7 20	8 37	5 10	7 1	8 23
30	T	Rocky Mt., N.C., battle, 1780	♌	4 49	7 23	9 11	6	4 53	7 19	9 8	5 11	7 1	8 59
31	W	First U.S. patent issued, 1790	♌	4 50	7 22	9 37	6	4 54	7 18	9 36	5 12	7 0	9 31

Weather Predictions—1-4, clear and warm; 5-9, agreeable weather; 10-13, hot; 14-18, changeable; 19-23, generally warm; 24-27, generally hot; 28-31, cloudy and stormy.

FIRST QUAR.	FULL MOON	LAST QUAR.	NEW MOON
5th	14th	21st	28th

THE TOMATO PINWORM

Destroy all old tomato vines and the fruit they bear as soon as the marketable fruit has been removed. The quickest and best method is to disk the field, thus cutting up the plants while they are green, followed by plowing. If plants are to be cut and piled they should be arranged in small piles or windrows within the field where they were grown and burned after becoming dry. This clean-up should include any eggplant, horsenettle or nightshade plants present in the field or along the field borders.

Experiments have shown that the pupation of the tomato pinworm occurs at or near the surface of the soil and that if the pupae are buried three or more inches in the soil they are killed. Consequently, plowing has been recommended as the next step following destruction of the old plants by disking or burning. Whether the old plants are piled and burned in the field where they grow or on unused land, the soil where the stacks have been should be plowed.

If old tomato vines and the fruit they bear have not been destroyed, as well as eggplant, horsenettle and nightshade plants, then new tomato crops should not be started near old fields containing these plants or near areas where old plants have been piled.

CONTROLLING WHEAT JOINTWORMS

Where wheat has been seriously damaged by the jointworm, it may be controlled effectively by plowing the stubble under deeply enough, preferably late summer or early fall, to prevent emergence of adults during the following spring. Objections to this recommendation, because of its interference with the growing of red clover and other crops that were formerly considered indispensable in soil conservation, may be met by temporary substitution of soybeans, sweet clover and other crops for forage and green manure. Where the foregoing method is adopted, all badly infested wheat should be cut as high as practicable so most of the jointworms will be left in the standing stubble and may then be plowed under and destroyed.

> R2, Travellers Rest, S. C., June 29, 1945
>
> Since using Royster's I have averaged 1½ bales of cotton per acre, and from 40 to 50 bushels of corn to the acre. I like Royster's because it drills well in the field and lasts the crop until it is matured. My 1945 cotton crop of 6 acres fertilized with Royster Kingfish, 600 lbs. per acre, is doing fine. I also have 15 acres in corn and two in watermelons.
>
> E. W. SANFORD

In Southern and Southeastern Sta where double-cropping systems are in general use, and in Western States, where summer fallowing is recommended, it should be possible to plow the stubble under throughout large areas and thus secure effective control of the jointworm. In regions where red clover culture is considered indispensable or where this method conflicts with accepted soil-conservation practices, it should not be adopted and might be employed only in cases where unusually severe infestations threaten very heavy wheat losses.

It is advisable to sow wheat as far as practicable from any unplowed wheat stubble of the previous year. This practice aids in preventing the jointworm adults that emerge from stubble of the previous year's wheat crop from finding the new crop of growing wheat in which to deposit their eggs.

A common practice during the winter and early spring in many wheat-growing areas is to top-dress the land sown in wheat with manure containing straw that has been used for bedding but is not well rotted or thoroughly trampled. When the jointworm is very abundant such straw has been found to contain living jointworms in numbers sufficient to reinfest the growing wheat to a considerable extent upon the emergence of the adults. Therefore, in areas where severe losses from the jointworm have occurred during the preceding season, land sown to wheat should be top-dressed only with manure containing straw that has been well rotted or thoroughly trampled.

"TIPS" ON PLOW SHARE SHARPENING

Before sharpening that plow share, first determine whether it is made of chilled cast-iron or soft-center steel. Plow shares made of cast-iron cannot be forged.

If the plow share happens to be made of chilled cast-iron, grind the entire cutting edge on a grindstone or emery wheel to an abrupt, beveled edge (thin edges do not have the strength to resist the severe wear to which plow shares are subjected). Remember—be sure to grind on the upper side of the share so the edge will be sharp with an abrupt, steep angle.

It is useless to try to sharpen chilled-iron shares that have become badly worn and lost their land and vertical suction. Replace them with new ones. Chilled-iron shares cannot be heated and forged and restored to their original shape.

1946

1946

☾PHASES	BOSTON D	BOSTON H	BOSTON M		NEWYORK H	NEWYORK M		WASH'TON H	WASH'TON M	
F. Q.	4	3	55	A	3	55	A	3	55	A
F. M.	12	5	26	A	5	26	A	5	26	A
L. Q.	19	8	17	A	8	17	A	8	17	A
N. M.	26	4	7	A	4	7	A	4	7	A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN SLOW M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
1	T	First Natl. census began, 1790	♍	4 51	7 21	10 1	6	4 55	7 17	10 1	5 12	6 59	10 0
2	F	Pres. Harding died, 1923	♍	4 52	7 20	10 24	6	4 56	7 16	10 25	5 13	6 58	10 29
3	S	Columbus first voyage, 1492	♍	4 53	7 18	10 47	6	4 57	7 15	10 49	5 14	6 57	10 58
31.		7th Sunday after Trinity		Day's Length—14h. 23m.—14h. 15m.—13h.42m.									
4	S	Brownstown Battle, Mich., 1812	♎	4 54	7 17	11 11	6	4 58	7 13	11 14	5 15	6 57	11 28
5	M	First book printed, 1462	♎	4 55	7 16	11 38	6	4 59	7 12	11 42	5 15	6 56	morn
6	T	Prog. political party formed, 1921	♏	4 56	7 15	morn	6	5 0	7 11	morn	5 16	6 55	0 0
7	W	U. S. War Dept. created, 1789	♏	4 57	7 14	0 10	6	5 1	7 10	0 15	5 17	6 54	0 37
8	T	Spanish Armada destroyed, 1588	♏	4 58	7 12	0 47	6	5 2	7 9	0 53	5 17	6 53	1 17
9	F	Cedar Mt., Va., battle, 1862	♐	4 59	7 11	1 30	5	5 3	7 7	1 36	5 18	6 52	2 2
10	S	Mo. admitted to Union, 1821	♐	5 0	7 10	2 21	5	5 4	7 6	2 27	5 19	6 51	2 53
32.		8th Sunday after Trinity		Day's Length—14h. 7m.—14h. 0m.—13h. 31m.									
11	S	Gold rush to Klondike, 1897	♑	5 1	7 8	3 19	5	5 5	7 5	3 25	5 19	6 50	3 49
12	M	Kill King Philip at Mt. Hope, 1676	♑	5 2	7 7	rises	5	5 6	7 4	rises	5 20	6 49	rises
13	T	Cortez takes Mexico, 1521	♒	5 3	7 6	7 58	5	5 7	7 2	7 55	5 21	6 48	7 43
14	W	First dated book issued, 1457	♒	5 4	7 4	8 27	5	5 8	7 1	8 25	5 21	6 47	8 18
15	T	Napoleon Bonaparte born, 1769	♒	5 5	7 3	8 52	4	5 9	7 0	8 51	5 22	6 46	8 49
16	F	King Peter of Serbia died, 1921	♓	5 7	7 1	9 17	4	5 10	6 58	9 17	5 23	6 45	9 20
17	S	First food inspection act, 1890	♓	5 8	7 0	9 43	4	5 11	6 57	9 45	5 24	6 44	9 53
33.		9th Sunday after Trinity		Day's Length—13h. 49m.—13h. 43m.—13h. 19m.									
18	S	Orville Wright born, 1861	♈	5 9	6 58	10 11	4	5 12	6 55	10 14	5 24	6 43	10 27
19	M	Victory of "Old Ironsides", 1812	♈	5 10	6 57	10 43	4	5 13	6 54	10 47	5 25	6 42	11 5
20	T	Benjamin Harrison born, 1833	♉	5 11	6 55	11 22	3	5 14	6 52	11 27	5 26	6 41	11 50
21	W	Bank of St. Louis estab., 1816	♉	5 12	6 54	morn	3	5 15	6 51	morn	5 26	6 40	morn
22	T	Debussy born, 1862	♊	5 13	6 52	0 10	3	5 16	6 50	0 16	5 27	6 38	0 41
23	F	Commodore Perry died, 1819	♊	5 14	6 51	1 8	3	5 17	6 48	1 14	5 28	6 37	1 41
24	S	*St. Bartholomew*	♋	5 15	6 49	2 15	2	5 18	6 47	2 21	5 28	6 36	2 46
34.		10th Sunday after Trinity		Day's Length—13h. 32m.—13h. 26m.—13h. 6m.									
25	S	Wash., D. C., set afire, 1814	♋	5 16	6 48	3 26	2	5 19	6 45	3 31	5 29	6 35	3 53
26	M	Texas ratifies repeal, 1933	♌	5 17	6 46	sets	2	5 20	6 43	sets	5 30	6 34	sets
27	T	Fort Frontenac battle, 1758	♌	5 18	6 44	7 37	2	5 21	6 42	7 35	5 30	6 33	7 28
28	W	First oil well, Titusville, Pa., 1859	♌	5 19	6 43	8 1	1	5 22	6 40	8 0	5 31	6 31	7 58
29	T	Washington ratify repeal, 1933	♍	5 20	6 41	8 25	1	5 23	6 39	8 25	5 32	6 30	8 28
30	F	Battle of Richmond, Ky., 1862	♍	5 21	6 39	8 48	1	5 23	6 37	8 50	5 32	6 29	8 57
31	S	Stamp. Envl. auth. by Cong., 1852	♎	5 22	6 38	9 12	0	5 24	6 36	9 15	5 33	6 27	9 27

Weather Predictions—1-4, thunder showers; 5-8, unsettled; 9-13, changeable; 14-17, clear and cooler; 18-22, rain clearing cool; 23-27, generally warm; 28-31, clear and pleasant.

FIRST QUAR.

4th

FULL MOON

12th

LAST QUAR.

19th

NEW MOON

26th

HOUSEHOLD HINTS

A sprinkle of dried dill added to gravy and stirred vigorously will give the gravy a tempting and unusual flavor.

Never sandpaper wood surfaces that are to be glued together—it closes the pores of the wood and the pieces will not "stick" together as well.

Keep a can of talcum powder handy on the sewing machine for use in removing those machine-oil spots that get on your material while sewing. Sprinkle the spots immediately; later, when the powder is brushed off, the spot will have disappeared.

If you have trouble with baked apples falling apart, try placing them in medium-sized muffin tins to bake.

For a quick "icing" on cupcakes, try dropping half a marshmallow on the top of each before it is baked.

Men's shirts will wear better if the collars and cuffs are turned up and soaped thoroughly along the folds before they are put in the tub or washing machine for laundering.

Two small towel racks screwed to the ends of the top step of the ladder will simplify that window washing job. They provide a place for the wet and dry cloth, and can be folded out of the way when the ladder is closed.

A small dish of vinegar placed on the back of the stove will destroy the odor of cabbage while cooking.

To clean and "sweeten" that aluminum coffee pot, slice a lemon and put the slices in the pot, together with plenty of cold water. Let it boil for awhile and then wipe out with a clean cloth.

The water in which onions have been boiled will be found very good for cleaning brass fixtures and gilt frames.

When you lose the key that comes with commercial tin-canned fish, meat, etc., try grabbing the tab with a pair of pliers and twisting the same as you would with the key.

Being flexible enough to follow the hose, yet stiff enough to force out the obstruction, a screen door spring will be found mighty handy for cleaning a clogged washing machine hose.

If you'll rub a little lard or vaseline on the door knobs, hinges and other hardware before you start painting a room, paint that has been spattered on the fixtures can be very easily wiped off with the grease.

Jelly or jam that has become hard and sugary can be restored by placing it in a warm oven until the sugar softens.

Instead of discarding that tablecloth that is worn thin in the center, why not cut up the outside into 12- or 16-inch squares, hemstitch and use as napkins?

When filling a turkey or chicken for baking, it is better only to fill the bird about three-quarters full so as to allow the dressing to expand in cooking.

Always put the closed ends of pillowcases through the wringer first—it'll prevent any possible bursting of seams from water and air pressure.

The next time you want to use grated cheese as a baked dish topping, try some cheese-cracker crumbs instead. Makes a very tasty topping, 'tis said.

A little cooked starch in the rinsing water will add just enough stiffness when ironed to give old linen that "new appearance."

Inverting a hot bowl or pan over the butter dish will soften the butter without melting it.

A small jar filled with sand or pebbles and placed in the center of a deep, round baking pan makes a dandy tube cake pan. Be sure to screw the lid on tight and wrap the jar in wax paper before pouring the batter around it.

An old, worn whisk broom when trimmed makes an excellent brush for scrubbing enamel kettles, etc.

For a good dish and sink protector in the bottom of the sink, sew together about a dozen used rubber fruit or canning jar rings so as to form a mat.

Turpentine and lard, melted together in equal portions, makes a fine liniment for rubbing the chest and neck in the treatment of colds.

The ham bone, when well cracked and allowed to simmer for three hours with vegetables, makes a very good soup. A bouillon cube or two also adds to the flavor.

Tissue paper between the folds of a garment before storing will prevent it from wrinkling. And, wadded tissue inserted in the sleeves will keep them from getting crushed.

A saucer or small plate placed upside down on the bottom of the salad bowl before being filled, will help to keep that salad nice and crisp—especially if it's to remain in the refrigerator for long.

R1, Pinnacle, N. C., June 6, 1945

Last year convinced me more than ever that Royster's is the kind of fertilizer to use to grow tobacco with more weight, finer texture, color and body. My 1944 tobacco crop of 20 acres, grown with 1000 lbs. Royster Golden Weed per acre, averaged 1500 lbs. leaf an acre. This fine crop sold for better than $700.00 net per acre. I'm sticking to Royster's because it makes better crops and more money for me. ERNEST W. POSEY

1946

September

1946

☾PHASES	BOSTON D	BOSTON H M	NEWYORK H M	WASH'TON H M
F. Q.	3	9 49 M	9 49 M	9 49 M
F. M.	11	4 59 M	4 59 M	4 59 M
L. Q.	18	1 44 M	1 44 M	1 44 M
N. M.	25	3 45 M	3 45 M	3 45 M

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN FAST M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
35. 11th Sunday after Trinity				Day's Length—13h. 13m.—13h. 9m.—12h. 52m.									
1	S	Germany invaded Poland, 1939	♎	5 23	6 36	9 38	0	5 25	6 34	9 42	5 34	6 26	9 59
2	M	*Labor Day*	♏	5 24	6 34	10 8	0	5 26	6 32	10 13	5 34	6 25	10 33
3	T	Treaty of peace with Eng., 1783	♏	5 26	6 33	10 42	1	5 27	6 31	10 47	5 35	6 24	11 11
4	W	French Republic establ., 1870	♏	5 27	6 31	11 22	1	5 28	6 29	11 28	5 36	6 22	11 54
5	T	Cholera in London, 1854	♐	5 28	6 29	morn	1	5 29	6 28	morn	5 36	6 21	morn
6	F	McKinley shot, 1901	♐	5 29	6 28	0 10	2	5 30	6 26	0 16	5 37	6 20	0 43
7	S	Settlement at Boston, 1630	♑	5 30	6 26	1 6	2	5 31	6 24	1 12	5 37	6 18	1 37
36. 12th Sunday after Trinity				Day's Length—12h. 53m.—12h. 51m.—12h.39m.									
8	S	First public school in U.S., 1621	♑	5 31	6 24	2 7	2	5 32	6 23	2 12	5 38	6 17	2 36
9	M	California became a state, 1850	♑	5 32	6 22	3 13	3	5 33	6 21	3 17	5 39	6 16	3 37
10	T	Perry's Lake Erie victory, 1813	♒	5 33	6 21	4 21	3	5 34	6 19	4 24	5 39	6 14	4 39
11	W	Brandywine battle, 1777	♒	5 34	6 19	rises	3	5 35	6 18	rises	5 40	6 13	rises
12	T	Americans take St. Mihiel, 1918	♓	5 35	6 17	7 19	4	5 36	6 16	7 19	5 41	6 12	7 20
13	F	Gen. John J. Pershing b., 1860	♓	5 36	6 15	7 46	4	5 37	6 14	7 47	5 41	6 10	7 53
14	S	Pres. McKinley died, 1901	♈	5 37	6 14	8 13	4	5 38	6 13	8 16	5 42	6 9	8 27
37. 13th Sunday after Trinity				Day's Length—12h. 34m.—12h. 32m.—12h. 25m.									
15	S	Pres. Wm. H. Taft born, 1857	♈	5 38	6 12	8 44	5	5 39	6 11	8 48	5 43	6 8	9 5
16	M	Alfred Noyes born, 1880	♉	5 39	6 10	9 21	5	5 40	6 9	9 26	5 43	6 6	9 48
17	T	Cong. sign U.S. Constitution, 1787	♉	5 40	6 8	10 6	5	5 41	6 8	10 12	5 44	6 5	10 37
18	W	*Ember day*	♊	5 41	6 7	11 0	6	5 42	6 6	11 6	5 45	6 4	11 33
19	T	Wm. B. Astor born, 1792	♊	5 43	6 5	morn	6	5 43	6 4	morn	5 45	6 2	morn
20	F	*Ember day*	♊	5 44	6 3	0 3	6	5 44	6 3	0 9	5 46	6 1	0 35
21	S	*St. Matthew* *Ember day*	♋	5 45	6 1	1 12	7	5 45	6 1	1 17	5 47	6 0	1 41
38. 14th Sunday after Trinity				Day's Length—12h. 14m.—12h. 13m.—12h. 11m.									
22	S	Emancipation proclomation, 1862	♋	5 46	6 0	2 23	7	5 46	5 59	2 27	5 47	5 58	2 47
23	M	☉ *enters* ♎, *Autumn begins*	♌	5 47	5 58	3 34	8	5 47	5 58	3 37	5 48	5 57	3 52
24	T	Pres. Zach. Taylor born, 1784	♌	5 48	5 56	4 43	8	5 48	5 56	4 45	5 48	5 56	4 54
25	W	Siege of Paris began, 1870	♍	5 49	5 54	sets	8	5 49	5 54	sets	5 49	5 54	sets
26	T	Balboa discovered Pacific, 1513	♍	5 50	5 52	6 50	9	5 50	5 53	6 51	5 50	5 53	6 57
27	F	First R.R. in World, Eng., 1825	♎	5 51	5 51	7 13	9	5 51	5 51	7 15	5 50	5 52	7 26
28	S	Spanish revolution, 1823	♎	5 52	5 49	7 38	9	5 52	5 49	7 41	5 51	5 50	7 57
39. 15th Sunday after Trinity				Day's Length—11h. 54m.—11h. 54m.—11h. 57m.									
29	S	*Michaelmas Day*	♎	5 53	5 47	8 5	10	5 53	5 47	8 9	5 52	5 49	8 29
30	M	Richard B. Sheridan born, 1751	♏	5 54	5 45	8 37	10	5 54	5 46	8 42	5 52	5 48	9 5

Weather Predictions—1-5, changeable; 6-8, warm and showery; 9-12, cool wave; 13-16, cool, pleasant; 17-20, warm; 21-24, fall in temperature; 25-27, rain, cool; 28-30, unsettled.

FIRST QUAR.

3rd

FULL MOON

11th

LAST QUAR.

18th

NEW MOON

25th

MAKING COMPOST FOR THE GARDEN

To make a compost, select a place on the back side of the garden or where the compost will be out of the way. Throw the soil back, leaving a hole or depression about 10 in. deep. A hole 3 ft. wide and 9 ft. long should be large enough to make a compost for the average size vegetable garden.

In this compost may be put almost any refuse matter which will decay or which is in a fine state of division to be mixed with the soil. This will include tree leaves, coal ashes, wood ashes, bones which may be broken into small pieces with a hammer, stems and tops of vegetables and flowering plants, clipping from the lawn, animal manure of any kind including that of poultry, rich soil, and sand which may come from drains or low places needing cleaning. It may be well, however, not to use roots of plants which have the root-knot nematode, or the roots or tops of tomato plants which have had wilt.

Coarse material such as dead grass, leaves, etc., is placed to the depth of about 10 in. in the bottom of the hole. On top of this is placed a layer of ashes or of rich earth; then more leaves and plant refuse is put on in alternate layers with other materials mentioned. The building of the compost may be continued all through the winter as refuse material accumulates.

Water should be added to keep the compost moist at all times. The whole mixture should be forked over two or three times during the winter. By the time spring comes this mixture will be in a condition to be spread over the garden and worked into the soil. Such an application with a good mixture of commercial fertilizers applied in the spring should "make your garden grow."—H. P. Stuckey in Southern Agriculturist.

THE WINDBREAK—A FARM ASSET

Windbreaks are a farm asset. They tend to prevent the soil from "blowing" and drying out quickly. They also protect grainfields and orchards from mechanical injury, and frequently the combined effects of wind reduction are stimulating to the growth of crops.

A belt of trees around the farm home reduces the penetrating capacity of cold winter winds and by its shade and verdure makes the farm a pleasant place in which to live in summer. And, too, the windbreak may also be a source of wood supply for use on the farm or for sale.

For detailed information on windbreaks, write the United States Department of Agriculture, Washington 25, D.C., for a copy of Farmers' Bulletin 1405, The Windbreak as a Farm Asset.

"DAY-AFTER" CANNING JOBS

When jars have cooled overnight, take off screw bands that have a glass or metal lid underneath. You can use these bands to help seal other jars. If a band sticks, don't force it—cover with a hot, damp cloth for a minute or two to loosen.

Test jars for leaks. One test is to turn a jar partly over in your hands. Don't use this test, however, for jars that were sealed with a band or cap screwed over a metal lid.

Test a flat metal lid by tapping the center with the tip of a teaspoon. If sealed right, it makes a clear ringing sound. A dull, flat note means a poor seal.

In general, a poor seal gives you one of two choices: Use the food up right away, or can it again—that is, empty jars, heat the food, pack loosely and process as if food were fresh. If a lid was at fault, use a new one.

Wipe each good jar clean and label it so you'll know the contents and date canned. If you canned more than one lot in a day, add a lot number. Then if a jar of food spoils, destroy and watch that lot carefully.

Store your canned food where it's cool, dark, dry. Protect the jars against bad conditions.

Warmth may make bacteria in the jars grow and multiply and spoil the food. Hot pipes behind a wall sometimes make a shelf or closet a hot spot.

Freezing does not spoil canned food. But it may crack a jar or break a seal and let bacteria in. In an unheated storage place, you can protect canned food from freezing to some extent by covering with old carpet or a blanket, or by wrapping in newspapers.

Dampness is hard on metal caps.

Light fades canned foods, so they are less attractive; and the foods lose vitamins. For a simple "blackout" wrap each jar in dark paper.

Goggins, Ga., June 27, 1945

I've been using Royster's for three years with splendid results—in fact, I have made better crops ever since I started using it. Last year I picked 66 bales of lint off the 57 acres I planted to cotton and fertilized with Royster Boll Filler. I find that Royster grown cotton has a larger stalk and bigger bolls, and matures right on to the top. I feel that when a farmer buys Royster's he is getting as good a fertilizer as can be bought.

E. H. JACKSON

1946

October

1946

☾ PHASES	BOSTON D H M	NEWYORK H M	WASH'TON H M
F. Q.	3 4 53 M	4 53 M	4 53 M
F. M.	10 3 40 A	3 40 A	3 40 A
L. Q.	17 8 28 M	8 28 M	8 28 M
N. M.	24 6 32 A	6 32 A	6 32 A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN FAST M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
1	T	2c post. between U.S.-Eng, 1908	♏	5 56	5 44	9 15	10	5 55	5 44	9 21	5 53	5 46	9 46
2	W	End of Jewish Kingdom, 1178	♐	5 57	5 42	10 1	11	5 56	5 42	10 7	5 54	5 45	10 34
3	T	Battle of Corinth, Miss., 1862	♐	5 58	5 40	10 53	11	5 57	5 41	10 59	5 54	5 44	11 26
4	F	Pres. R. B. Hayes born, 1822	♐	5 59	5 38	11 51	11	5 58	5 39	11 57	5 55	5 42	morn
5	S	Pres. C. A. Arthur born, 1830	♑	6 0	5 37	morn	11	5 59	5 38	morn	5 56	5 41	0 21
40.		16th Sunday after Trinity		Day's Length—11h. 34m.—11h. 36m.—11h. 43m.									
6	S	Germans ask for Armistice, 1918	♑	6 1	5 35	0 54	12	6 0	5 36	0 59	5 57	5 40	1 21
7	M	Colonists defeat Burgoyne, 1777	♒	6 2	5 33	2 1	12	6 1	5 34	2 5	5 57	5 38	2 22
8	T	Great Chicago Fire, 1871	♒	6 3	5 32	3 11	12	6 2	5 33	3 14	5 58	5 37	3 26
9	W	Germans take Antwerp, 1914	♓	6 4	5 30	4 21	13	6 3	5 31	4 22	5 59	5 36	4 29
10	T	Gamboa dike destroyed, 1913	♓	6 6	5 28	rises	13	6 5	5 29	rises	6 0	5 35	rises
11	F	D. of A. R. organized, 1890	♓	6 7	5 27	6 12	13	6 6	5 28	6 14	6 0	5 33	6 24
12	S	Columbus discovered Amer., 1492	♈	6 8	5 25	6 43	13	6 7	5 26	6 46	6 1	5 32	7 2
41.		17th Sunday after Trinity		Day's Length—11h. 14m.—11h. 17m.—11h. 28m.									
13	S	Molly Pitcher, heroine, b., 1744	♈	6 9	5 23	7 19	14	6 8	5 25	7 24	6 2	5 31	7 44
14	M	Hastings battle, 1066	♉	6 10	5 22	8 2	14	6 9	5 23	8 8	6 3	5 30	8 32
15	T	Gregorian calendar intro., 1582	♉	6 12	5 20	8 54	14	6 10	5 22	9 0	6 3	5 29	9 27
16	W	Fire in Washington, D.C., 1920	♊	6 13	5 18	9 55	14	6 11	5 20	10 1	6 4	5 27	10 28
17	T	Alaska boundary award., 1903	♊	6 14	5 17	11 3	15	6 12	5 19	11 9	6 5	5 26	11 33
18	F	*St. Luke, Evangelist*	♋	6 15	5 15	morn	15	6 13	5 17	morn	6 6	5 25	morn
19	S	Yorktown battle, 1781	♋	5 16	5 14	0 13	15	6 14	5 16	0 18	6 6	5 24	0 39
42.		18th Sunday after Trinity		Day's Length—10h. 55m.—10h. 59m.—11h. 16m.									
20	S	U.S. treaty with Spain, 1795	♌	6 17	5 12	1 23	15	6 15	5 14	1 27	6 7	5 23	1 43
21	M	San Francisco Earthquake, 1868	♌	6 18	5 11	2 32	15	6 16	5 13	2 34	6 8	5 22	2 46
22	T	Sarah Bernhardt born, 1844	♍	6 20	5 9	3 39	15	6 17	5 11	3 40	6 9	5 20	3 46
23	W	Statue of Liberty dedicated, 1886	♍	6 21	5 8	4 44	16	6 19	5 10	4 44	6 9	5 19	4 45
24	T	Quake breaks Alaska cables, 1927	♍	6 22	5 6	sets	16	6 20	5 8	sets	6 10	5 18	sets
25	F	Charge of Light Brigade, 1854	♎	6 23	5 5	5 40	16	6 21	5 7	5 43	6 11	5 17	5 57
26	S	Erie Canal opened, 1825	♎	6 24	5 3	6 7	16	6 22	5 6	6 11	6 12	5 16	6 29
43.		19th Sunday after Trinity		Day's Length—10h. 36m,—10h. 41m.—11h. 2m.									
27	S	Theodore Roosevelt born, 1858	♏	6 26	5 2	6 37	16	6 23	5 4	6 42	6 13	5 15	7 4
28	M	*St. Simon and St. Jude*	♏	6 27	5 0	7 12	16	6 24	5 3	7 18	6 13	5 14	7 43
29	T	Sir Walter Raleigh behead., 1618	♏	6 28	4 59	7 54	16	6 25	5 2	8 0	6 14	5 13	8 27
30	W	Pres. John Adams born, 1735	♐	6 29	4 58	8 42	16	6 26	5 0	8 48	6 15	5 12	9 15
31	T	*Hallowe'en*	♐	6 31	4 56	9 37	16	6 28	4 59	9 43	6 16	5 11	10 9

Weather Predictions—1-4, cool; 5-8, rain, clearing warm; 9-12, cool; 13-17, showers, clearing cool; 18-22, generally clear; 23-26, blustery and cool; 27-31, clear and moderate.

FIRST QUAR.

3rd

FULL MOON

10th

LAST QUAR.

17th

NEW MOON

24th

Use ROYSTER'S for More Crop Profits

HOW TO PRODUCE HIGH-GRADE HAY

Early cut alfalfa has 18% protein; late cut, 15%. Early cut red clover is practically equal to alfalfa in protein content.

Cut alfalfa when from one-tenth to one-fourth in bloom. When it blooms sparingly, cut before lower leaves begin to turn yellow and fall. First crop may be cut in the late bud stage without injuring the stand. In some places it may be necessary to cut alfalfa at a different stage of growth in order to control leafhoppers.

Cut red clover and alsike at the half-bloom stage.

Cut annual lespedeza when in full bloom; sericea lespedeza when from 10 to 12 in. high.

Cut soybeans when the beans are half to three-quarters developed or before; cowpeas when the first pods begin to ripen and turn yellow.

Cut timothy when it is in full bloom or before, Johnson grass when the heads are just coming out of the boot, and other grasses, such as redtop and orchard grass, not later than full bloom. When cut at an early stage, these grasses are more palatable and nutritious and sometimes will make more than one cutting.

Cut only the amount of hay that can be handled on time. Hay that lies in the swath or windrow too long loses its leaves and color.

The leaves contain 75% of the protein in legume hays. When the hay is well wilted and before the leaves are lost, turn it into small windrows, preferably with a side-delivery rake. Complete the curing in the windrow. Partly cured hay in windrows should be turned only when it is tough enough that the leaves will not shatter. Turning can be done with the side-delivery rake.

The more green color in the hay the more vitamin A it contains. Cure the hay in the windrow or cock so that the sun and dew can't bleach it. Save color and prevent mold by putting the hay in the stack or a well-ventilated mow when dry enough to avoid excessive heating; that is, when a wisp of the hay is slightly brittle and shows no moisture when twisted tightly or when the outer skin of alfalfa or clover stems cannot be peeled off with the thumbnail. With soybeans or cowpeas, store when the seeds are cured. Scatter the hay well in the mow—stack bales on edge with the wires on the sides showing. These practices will help air out the hay as it goes through the sweat and will prevent it from heating too much.

Bale hay from the stack or mow after it has gone through the sweat. Do not bale legume hay during cold, windy weather.

In the eastern United States farmers have difficulty in baling hay from the windrow. Either it isn't well-cured and molds in the bale or it is so dry the leaves shatter. The difficulty is to find the time when the hay is just right; not moist enough to mold—not dry enough to lose its leaves. After baling from the windrow stand the bales on end in the fields.

If the weather is bad for curing hay you may be able to put up the crop as grass silage.

SOME "HINTS" ON USING GLUE

Furniture and other articles made of wood for indoor use should be glued as well as nailed or screwed together. If only nails or screws are used the "joints" eventually work loose and come apart.

The best glue to use for furniture and woodwork is the type used in furniture making—the hard, lump glue that has to be "melted down" before being used. And remember—the thinner the "coating" of glue between two pieces of wood, the stronger it will be, providing the surfaces were completely covered.

Before the glue is applied, be sure to see that the objects are dry and clean—free of dust or any other loose surface coating. Then spread the glue evenly and thoroughly over the surfaces to be glued and set aside until the glue has become "tacky"—for about 10 or 15 minutes—before fastening them together. The glued surfaces should be placed together accurately and not moved or slipped about before they are nailed or fastened together permanently. Never jar or hammer a freshly glued assembly. And after the object has been glued and fastened together, put it aside for a few days before using.

Bethel, N. C., July 10, 1945

Father and I have been using Royster's for many years—it has always produced excellent crops for us. 13½ acres tobacco grown in 1944 with 1350 lbs. of Royster Golden Weed per acre, averaged 1600 lbs. of leaf to the acre that brought me $700.70 net an acre. My 1945 crop looks even better and I am expecting more money for it than I received for my 1944 crop.

LUTHER STATON

1946

November

1946

PHASES	BOSTON D H M	NEWYORK H M	WASH'TON H M
F. Q.	1 11 40 A	11 40 A	11 40 A
F. M.	9 2 10 M	2 10 M	2 10 M
L. Q.	15 5 35 A	5 35 A	5 35 A
N. M.	23 0 24 A	0 24 A	0 24 A

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M	SUN FAST M	LATITUDE OF MIDDLE STATES Sun rises H M	Sun sets H M	Moon sets H M	LATITUDE OF SOUTHERN STATES Sun rises H M	Sun sets H M	Moon sets H M
1	F	*All Saints' day*	♑	6 32	4 55	10 37	16	6 29	4 58	10 42	6 17	5 10	11 6
2	S	James K. Polk born, 1795	♑	6 33	4 54	11 42	16	6 30	4 57	11 46	6 18	5 9	morn

44. 20th Sunday after Trinity **Day's Length—10h. 18m.—10h. 25m.—10h. 51m.**

3	S	Drake circled the world, 1580	♑	6 34	4 52	morn	16	6 31	4 56	morn	6 18	5 9	0 6
4	M	Gatling gun patented, 1862	♒	6 36	4 51	0 49	16	6 32	4 54	0 52	6 19	5 8	1 7
5	T	Gunpowder plot, 1605	♒	6 37	4 50	1 57	16	6 34	4 53	1 59	6 20	5 7	2 8
6	W	Hoover elected President, 1928	♓	6 38	4 49	3 7	16	6 35	4 52	3 8	6 21	5 6	3 11
7	T	Tippecanoe battle, 1811	♓	6 40	4 48	4 21	16	6 36	4 51	4 20	6 22	5 5	4 18
8	F	Teddy Roosevelt elected, 1904	♈	6 41	4 46	5 38	16	6 37	4 50	5 36	6 23	5 4	5 28
9	S	1st settlement in Conn., 1635	♈	6 42	4 45	rises	16	6 38	4 49	rises	6 24	5 4	rises

45. 21st Sunday after Trinity **Day's Length—10h. 1m.—10h. 8m.—10h. 38m.**

10	S	Receiver for House of David, 1927	♉	6 43	4 44	5 53	16	6 40	4 48	5 58	6 25	5 3	6 21
11	M	*Armistice day*	♉	6 45	4 43	6 43	16	6 41	4 47	6 49	6 26	5 2	7 15
12	T	King Tut coffin opened, 1925	♊	6 46	4 42	7 43	16	6 42	4 46	7 49	6 27	5 1	8 16
13	W	R.R. Stand. Time in effect, 1883	♊	6 47	4 41	8 51	16	6 43	4 45	8 57	6 27	5 1	9 23
14	T	Robert Fulton born, 1765	♋	6 48	4 40	10 3	16	6 44	4 44	10 8	6 28	5 0	10 31
15	F	Pike's Peak discovered, 1806	♋	6 50	4 39	11 14	15	6 46	4 43	11 18	6 29	5 0	11 36
16	S	Oklahoma a state, 1907	♌	6 51	4 39	morn	15	6 47	4 42	morn	6 30	4 59	morn

46. 22nd Sunday after Trinity **Day's Length—9h. 46m.—9h. 53m.—10h. 27m.**

17	S	Tornado at Washington, 1927	♌	6 52	4 38	0 24	15	6 48	4 41	0 27	6 31	4 58	0 40
18	M	Fish Dam Ford battle, 1780	♍	6 53	4 37	1 31	15	6 49	4 41	1 33	6 32	4 58	1 40
19	T	Pres. J. A. Garfield born, 1831	♍	6 55	4 36	2 36	15	6 50	4 40	2 36	6 33	4 58	2 39
20	W	Count Leo Tolstoi died, 1910	♍	6 56	4 35	3 40	14	6 51	4 39	3 39	6 34	4 57	3 37
21	T	First permanent theatre, 1766	♎	6 57	4 34	4 43	14	6 53	4 39	4 41	6 35	4 57	4 34
22	F	France an Empire, 1852	♎	6 58	4 34	5 44	14	6 54	4 38	5 41	6 36	4 56	5 29
23	S	Clemenceau died in Paris, 1929	♏	6 59	4 33	sets	14	6 55	4 38	sets	6 37	4 56	sets

47. 23rd Sunday after Trinity **Day's Length—9h. 31m.—9h. 41m.—10h. 18m.**

24	S	Tasmania discovered, 1642	♏	7 1	4 32	5 12	13	6 56	4 37	5 17	6 38	4 56	5 41
25	M	Fort Du Quesne taken, 1758	♏	7 2	4 32	5 51	13	6 57	4 37	5 57	6 38	4 55	6 24
26	T	Wm. Cowper born, 1731	♐	7 3	4 31	6 37	13	6 58	4 36	6 43	6 39	4 55	7 10
27	W	New York Subway opened, 1904	♐	7 4	4 31	7 29	12	6 59	4 36	7 35	6 40	4 55	8 2
28	T	First Amer. P.O. in N.Y., 1783	♑	7 5	4 30	8 26	12	7 0	4 35	8 32	6 41	4 55	8 56
29	F	British capt. Savannah, Ga., 1778	♑	7 6	4 30	9 27	12	7 1	4 35	9 32	6 42	4 54	9 53
30	S	Mark Twain b., 1835 *St. Andrew*	♑	7 7	4 29	10 32	11	7 2	4 35	10 36	6 42	4 54	10 53

Weather Predictions—1-4, rain, clearing cool; 5-6, warm and cloudy; 7-10, warm and pleasant; 11-14, stormy; 15-18, cloudy, showers; 19-22, clear, cold; 23-27, cold; 28-30, pleasant.

FIRST QUAR.

1st

FULL MOON

9th

LAST QUAR.

15th

NEW MOON

23rd

MAKING MONEY WITH COTTON

Here are ten important conclusions and suggestions to cotton farmers—drawn from a state-wide contest in South Carolina and tests conducted by the South Carolina Experiment Station:

1. Plant a variety of proved worth that normally produced a staple 1 to 1⅛ inches.
2. Treat all planting seed with Ceresan; plant only wilt-resistant varieties on wilt-infested soils.
3. Plant on a firm seedbed on fertile, well drained "cotton" soils.
4. Use rows 34 to 40 inches wide.
5. Apply fertilizer and bed 10 days before planting, if possible.
6. Use 400 to 800 lbs. of fertilizer per acre under the cotton, depending on soil type and fertility.
7. After chopping, side-dress with 100 to 150 lbs. nitrate of soda or equivalent. If there was rust in the previous crop, use 50 to 100 lbs. muriate of potash or equivalent.
8. Leave 2 to 3 stalks per hill every hoe-width apart.
9. Cultivate shallow and often enough to control weeds and grass.
10. To control boll weevil, make three early applications of 1-1-1 poison mixture at intervals of 5 to 7 days, the first application just before the first squares appear. Where infestation warrants, apply later calcium arsenate dust and lime, equal parts, 6 to 8 lbs. per acre, at intervals of four to five days. Pick up squares when first blooms appear, and weekly for three weeks if conditions justify.—A. B. Bryan in Progressive Farmer.

OLD FORD AXLE MAKES GOOD PUNCH

Frequently a farmer runs up against a job requiring the use of a heavy duty punch. Here's how to make an excellent ½ in. or ⅝ in. heavy duty punch from an old Ford axle.

Heat to a cherry red the threaded end of the axle and cut it off. Now reheat this same end of the bar and with a heavy hammer pound about 5⅛ in. or 5¼ in. of it out square, then octagonal and finally round. After hammering the bar to the desired shape, hold the end square against the face of the grinder until the pointed tip is "blunted" evenly to the desired size—about ½ in. or ⅝ in. across (the point should taper back about 5 in. when completed). After this has been done, grind the surface of the forged part smooth while hot.

The next step is to fix the "driving end"—the end which takes the hammering.

Heat to a cherry red and cut off enough of the bar to allow for a 12 in. punch (the recommended length for a heavy duty punch). Then reheat to a cherry red and taper the "driving end" until it measures, when finished, about ¾ in. across and tapers back about ¾ in.

To temper the punch, heat about 4 in. of the point to a cherry red, cool about 2 in. in water and then grind or file part of the cooled surface until a purplish color draws down towards the point; when it reaches the point, quench end of punch in water.

BACTERIAL WILT OF CORN

Bacterial wilt is one of the most destructive diseases of sweet corn. It also may occur on flint, flour, dent and popcorn. In general, sweet corn is the most susceptible and dent corn the most resistant. Usually the early-maturing varieties of each type of corn are more susceptible than the late-maturing varieties.

The disease is caused by bacteria that develop in abundance in the leaf veins and in the water-conducting vessels of the stalks. Young sweet corn plants may wilt and die or may develop long wilted pale-green streaks in the leaf blades. These plants remain stunted, tassel prematurely and produce no ears or only nubbins. Young dent corn plants are more resistant to wilt infection, but when the plants are in tassel they develop leaf streaks, which may be sufficiently abundant to blight the leaves and make the plants more susceptible to diplodia stalk rot.

Wilt bacteria may be carried over winter to a limited extent in infected seed. In this way they may be introduced into new areas or countries. The most important means of distribution, however, is by corn flea beetles. These beetles feed on diseased corn plants in the summer and fall, live over winter and carry the wilt bacteria to the young corn plants in the spring as they feed on them. Later they spread the infection, and as new broods of beetles increase their numbers, they spread the infection still farther. Thus the disease becomes increasingly abundant as the season advances.

The use of resistant varieties is the only practicable means of controlling bacterial wilt.

R2, Eden, Md., June 9, 1945

Royster Arrow just can't be beat for Bountiful Wax Beans. We used 800 lbs. of it to the acre under our beans this year and made a wonderful crop. The first picking brought $283.76 an acre—clear of all expenses. We have faith in Royster's because it has produced for us year after year early crops of large yields and fine quality. -ALBERT FIELDS

1946

December

1946

PHASES		BOSTON	NEW YORK	WASH'TON
F. Q.	1	4 47 A	4 47 A	4 47 A
F. M.	8	0 52 A	0 52 A	0 52 A
L. Q.	15	5 57 M	5 57 M	5 57 M
N. M.	23	8 6 M	8 6 M	8 6 M
F. Q.	31	7 23 M	7 23 M	7·23 M

D M	D W	Historical Events	MOON'S SIGNS	LATITUDE OF NORTHERN STATES Sun rises H M			SUN FAST	LATITUDE OF MIDDLE STATES Sun rises H M			LATITUDE OF SOUTHERN STATES Sun rises H M		
				Sun rises H M	Sun sets H M	Moon sets H M	M	Sun rises H M	Sun sets H M	Moon sets H M	Sun rises H M	Sun sets H M	Moon sets H M
48.		**1st Sunday in Advent**		**Day's Length—9h. 21m.—9h. 31m.—10h. 10m.**									
1	S	1st use of gas for light, 1816	♒	7 8	4 29	11 39	11	7 3	4 34	11 42	6 44	4 54	11 54
2	M	Monroe doctrine estab., 1823	♒	7 9	4 29	morn	11	7 4	4 34	morn	6 44	4 54	morn
3	T	Mary Baker Eddy died, 1910	♓	7 10	4 28	0 47	10	7 5	4 33	0 48	6 45	4 54	0 55
4	W	Wm. H. Harrison nomin., 1839	♓	7 11	4 28	1 56	10	7 6	4 33	1 56	6 46	4 54	1 57
5	T	Repeal 18th Amendment, 1933	♈	7 13	4 28	3 8	9	7 7	4 33	3 7	6 47	4 54	3 2
6	F	*St. Nicholas*	♈	7 14	4 28	4 24	9	7 8	4 33	4 21	6 48	4 54	4 11
7	S	Delaware rat. U.S. constl.,1787	♉	7 15	4 28	5 44	9	7 9	4 33	5 40	6 49	4 54	5 24
49.		**2nd Sunday in Advent**		**Day's Length—9h. 12m.—9h. 23m.—10h. 5m.**									
8	S	Ely Whitney, inventor, b., 1765	♉	7 16	4 28	rises	8	7 10	4 33	rises	6 49	4 54	rises
9	M	Riots in Colombia, 1929	□	7 17	4 28	5 24	8	7 11	4 33	5 30	6 50	4 54	5 57
10	T	Miss. admitted to Union, 1817	□	7 17	4 28	6 30	7	7 12	4 33	6 36	6 51	4 54	7 3
11	W	Indiana admitted to Union, 1816	♋	7 18	4 28	7 43	7	7 13	4 33	7 48	6 52	4 54	8 13
12	T	Arthur Brisbane born, 1864	♋	7 19	4 28	8 58	6	7 14	4 33	9 2	6 52	4 55	9 22
13	F	Lindy flies Wash. to Mex., 1927	♌	7 20	4 28	10 11	6	7 15	4 33	10 14	6 53	4 55	10 29
14	S	Jane Cowl, actress, born, 1884	♌	7 21	4 28	11 21	5	7 16	4 33	11 23	6 54	4 55	11 33
50.		**3rd Sunday in Advent**		**Day's Length—9h. 6m.—9h. 18m.—10h. 1m.**									
15	S	Rasputin died, 1916	♌	7 22	4 28	morn	5	7 16	4 34	morn	6 54	4 55	morn
16	M	Great fire of New York, 1835	♍	7 22	4 29	0 28	4	7 17	4 34	0 29	6 55	4 56	0 33
17	T	Beethoven, composer, born, 1770	♍	7 23	4 29	1 32	4	7 18	4 34	1 32	6 56	4 56	1 31
18	W	*Ember day*	♎	7 24	4 29	2 35	3	7 18	4 34	2 33	6 56	4 57	2 28
19	T	Wash. at Valley Forge, 1777	♎	7 24	4 29	3 37	3	7 19	4 35	3 34	6 57	4 57	3 24
20	F	*Ember day*	♎	7 25	4 30	4 39	2	7 20	4 35	4 35	6 58	4 57	4 20
21	S	*St. Thomas* *Ember day*	♏	7 26	4 30	5 41	2	7 20	4 36	5 36	6 56	4 58	5 18
51.		**4th Sunday in Advent**		**Day's Length—9h. 5m.—9h. 15m.—9h. 59m.**									
22	S	George Eliot died, 1880	♏	7 26	4 31	6 41	1	7 21	4 36	6 35	6 59	4 58	6 16
23	M	M.C. Taylor app. to vatican, 1939	♐	7 27	4 31	sets	1	7 21	4 37	sets	6 59	4 59	sets
24	T	Treaty of Ghent, 1814	♐	7 27	4 32	5 24	0	7 22	4 37	5 30	7 0	4 59	5 57
25	W	*Christmas day*	♐	7 27	4 32	6 21	S.	7 22	4 38	6 27	7 0	5 0	6 52
26	T	*St. Stephen*	♑	7 28	4 33	7 22	1	7 22	4 38	7 27	7 0	5 0	7 49
27	F	*St. John, Evangelist*	♑	7 28	4 34	8 25	1	7 23	4 39	8 29	7 1	5 1	8 47
28	S	*Innocents.* Wood. Wilson b.1856	♒	7 29	4 34	9 29	2	7 23	4 40	9 32	7 1	5 1	9 46
52.		**1st Sunday after Christmas**		**Day's Length—9h. 6m.—9h. 16m.—10h. 0m.**									
29	S	Texas admitted to Union, 1845	♒	7 29	4 35	10 34	2	7 24	4 40	10 36	7 2	5 2	10 45
30	M	Jesuits founded, 1535	♒	7 29	4 36	11 40	3	7 24	4 41	11 41	7 2	5 3	11 44
31	T	Stone River battle, 1862	♓	7 29	4 36	morn	3	7 24	4 42	morn	7 2	5 4	morn

Weather Predictions—1-4, frosty, rain; 5-8, clear, cold and pleasant; 9-11, stormy; 12-16, cloudy, threatening; 17-20, snow; 21-24, windy; 25-27, snow and cold; 28-31, cloudy.

FIRST QUAR.

1st-31st

FULL MOON

8th

LAST QUAR.

15th

NEW MOON

23rd

DOMESTIC POSTAL INFORMATION AND RATES

(As of May 15, 1945)

FIRST CLASS MAIL

(a) Hand or typewritten matter and carbon and letterpress copies thereof, whether sealed or unsealed. Also all matter sealed or otherwise closed against postal inspection. Maximum weight 70 lbs. (b) Government postal cards. (c) Private mailing cards which, at regular rate, cannot be larger than 3 9/16" x 5 9/16" or smaller than 2¾" x 4". If larger, first class letter rate applies for personal messages and third class rate for cards printed, multigraphed, etc.

RATES: (a) Letters and other matter wholly or partly in writing as described above—3c an ounce or fraction thereof when addressed for local and other than local delivery; 1c an ounce or fraction thereof when mailed for local delivery, not including rural routes, where letter carrier service is not available. (b) Government postal cards, 1c each. (c) Private mailing cards, 1c each except as noted under "(c)" above.

SHORT PAID MAIL: All first class matter upon which postage is insufficient, but upon which postage for at least 1 oz. or more has been prepaid, will be forwarded and deficient postage collected at destination. For failure to pay postage on 1 oz., the amount collected from addressee will be 3c. For failure to pay postage on more than 1 oz., amount collected from addressee will be 4c for each ounce or fraction thereof shortpaid.

BUSINESS REPLY ENVELOPES AND CARDS: These may be distributed in any quantity and in any manner desired without prepayment of return postage. Postage is collected from original mailer on their return, at the following rates: Business Reply Envelopes (both local and non-local)—3c an ounce, plus 1c; Business Reply Cards (not larger than 3 9/16"x5 9/16" nor smaller than 2¾"x4")—2c each. A permit (which is issued free) must be secured from the postmaster of the city to which envelopes or cards are to be returned, or where the home office of a concern with branches is located.

SPECIAL DELIVERY rates on first class mail are in addition to regular postage and are as follows: Up to 2 lbs., 13c; over 2 lbs. and not more than 10 lbs., 20c; over 10 lbs., 25c.

RESTRICTED DELIVERY: For a fee of 20c, the sender may restrict delivery of registered, insured or C.O.D. mail by marking it "Deliver to addressee only," or "Deliver to addressee or order." For a fee of 20c, to be collected by postmaster at office of delivery, the addressee (instead of sender) may restrict delivery of registered, insured or C.O.D. mail to himself or his order, by notifying the postmaster.

REGISTERED MAIL: First class and sealed third or fourth class mail prepaid at first class rates may be registered. Indemnity is provided to the amount of $1,000 at fees (in addition to regular first class rates), as follows: For registry indemnity not exceeding $5, 20c; over $5 to $50, 25c; over $50 to $75, 35c; over $75 to $100, 40c; over $100 to $200, 55c; over $200 to $300, 65c; over $300 to $400, 80c; over $400 to $500, 95c; over $500 to $600, $1.05; over $600 to $700, $1.15; over $700 to $800, $1.20; over $800 to $900, $1.25; over $900 to $1,000, $1.35. For registered mail having a declared value in excess of maximum indemnity shown above, consult your postmaster.

RETURN RECEIPTS REQUESTED for registered and insured mail: At time of mailing, 4c extra; after mailing, 7c extra; at time of mailing to show whom, when and address where article was delivered, 31c extra. Mail without intrinsic value (such as legal notices for which no indemnity is provided) may be registered at the minimum fee of 20c.

C.O.D. REGISTERED MAIL: Registered mail may be sent C.O.D., the collection of charges up to $1,000 being made by the postal service and remitted to the mailer, for fees of 40c up to $10; 55c up to $50; 75c up to $100; $1.00 up to $200; $1.05 up to $300; $1.10 up to $400; $1.15 up to $500; $1.20 up to $600; $1.25 up to $700; $1.30 up to $800; $1.40 up to $1,000. These fees are in addition to postage.

Fee for service in effecting delivery of C.O.D. mail upon terms differing from those originally stipulated at the time of mailing, 10c; Demurrage charge on domestic C.O.D.'s, 5c per day; Fee for notifying the sender or his representative of inability to deliver a C.O.D. article, 5c.

AIR MAIL: Everything mailable except that liable to damage by freezing can

DOMESTIC POSTAL INFORMATION AND RATES (Continued)

be sent "Air Mail." Maximum weight, 70 lbs. Parcels must not exceed 100 inches in length and girth combined.

Air mail from one post office to another on the mainland of the United States, including Alaska, and from one post office to another in Hawaiian Islands, from one post office to another in Puerto Rico, from one post office to another in Virgin Islands of the United States, and between the latter islands and Puerto Rico (but not between mainland of United States and any of these islands), 8c an ounce or fraction thereof.

The rate of 6c for each half ounce or fraction thereof, established by Order #18989 (Par. 3½, Sec. 511, Postal Laws and Regulations), will continue to apply to air mail sent to or by the armed forces of the United States overseas served through army and navy post offices.

The air mail rate to or from any point in the continental United States (including Alaska) via the trans-Pacific service to Hawaii is 15c, to Canton Island 30c, for each half ounce or fraction of a half ounce.

The air mail rate between Puerto Rico or the Virgin Islands of the United States and the continental United States (including Alaska) is 8c for each half ounce or fraction of a half ounce; and between the United States, Puerto Rico, Virgin Islands of the United States, or the United States Naval Station, Guantanamo Bay (Cuba), and the Canal Zone, is 10c for each half ounce or fraction of a half ounce.

Special airplane stamps issued for the payment of postage on air mail or ordinary postage stamps may be used. The use of air mail stamps on other than air mail is not permissible.

Air mail should be conspicuously endorsed "Via Air Mail" below the postage stamp and above the address.

To obtain the fullest measure of service for the postage paid at the air mail rate, air mail should be sent special delivery. Letters bearing 21c special-delivery air mail stamps, as well as other air mail sent special delivery, should be conspicuously marked "Special Delivery—Air Mail." The fact that it carries air mail and special delivery stamps is not sufficient.

Air mail may be registered, insured or sent C.O.D.

Undeliverable air mail will not be returned to sender via airplane but returned in regular mail.

Foreign Air Mail—For Canada, 8c for each ounce or fraction thereof; for other foreign countries, consult your postmaster.

SECOND CLASS MAIL

Newspapers and other periodical publications which are issued at stated intervals as frequently as four times a year, bearing a date of issue, numbered consecutively, issued from a known office of publication, and having a legitimate list of subscribers who have paid 50% or more of the regular advertised subscription price. Publications designed primarily for advertising purposes or for free circulation, which includes house organs or magazines, cannot be sent at second class rates. Publications of regularly incorporated institutions of learning, benevolent or fraternal societies, trade unions or of state institutions, may be sent second class under certain conditions (consult your postmaster).

RATES: Rates for second class matter are based on pound weights as low as 1½c per lb. and ranging up to 7c per lb., the rates for advertising portions of publications being based on zones. Consult your postmaster for complete information.

Rates for second class matter when mailed by others than the publishers or news agents, is 1c for each 2 oz. or fraction thereof or the fourth class rate, whichever is lower, computed on each separately addressed piece.

APPLICATION FEE: Application for entry of a publication as second class matter or registry as a news agent should be made through the postmaster to the Third Assistant Postmaster General, Division of Classification, Washington, D. C. This application can be made upon payment of fees ranging from $10 to $100 for entry or re-entry of a publication as second class matter, and of $20 for registry as a news agent. This fee must accompany each application.

DOMESTIC POSTAL INFORMATION AND RATES (Continued)

THIRD CLASS MAIL

Mailable matter (unsealed) not included in first or second class mail, weighing not to exceed 8 oz., including the following: Printed matter; circulars; drawings; pamphlets; books (other than blank books) and catalogs; merchandise; blueprints; form letters (in lots of 20 or more identical copies); proofsheets, corrected proofsheets and manuscript copy accompanying same; seeds, roots, bulbs, plants, etc.; bills or statements in quantities of 20 or more identical copies produced by photographic or mechanical process.

RATES: There are four different postage rates that apply to the mailing of third class matter, as follows—(1) individual pieces containing material as described above may be mailed for 1½c for each 2 oz. or fraction thereof; (2) individual pieces containing books and catalogs having, including covers, 24 pages or more, 22 or more of which are printed, or seeds, plants, etc., may be mailed for 1c for each 2 oz. or fraction thereof; (3) bulk mail, which is ordinary third class matter as described above, in quantities of 200 or more identical pieces or weighing 20 or more pounds, may be mailed for 12c per lb. or fraction thereof weighed in bulk, with a minimum rate of 1c per piece; (4) bulk lots of books and catalogs having, including covers, 24 pages or more, 22 or more of which are printed, and seeds, plants, etc., mailed in quantities of 200 or more pieces or 20 or more pounds, may be mailed for 8c per lb. or fraction thereof weighed in bulk, with a minimum rate of 1c per piece. It must be separated by States and post offices. Matter mailed at bulk rates cannot be registered or insured or sent C.O.D.

LIMIT OF WEIGHT: 8 oz. is the maximum limit of weight for third class mail. The same identical type of matter included in third class mail is classified as fourth class or parcel post when the weight exceeds 8 oz.

BULK MAIL PERMIT: A permit to use bulk mail must be secured by application to the postmaster at the post office of mailing. If the bulk mail indicia is to be printed on the envelope to eliminate the necessity of affixing stamps, a fee of $10 must accompany the application. If pre-canceled stamps are affixed to envelopes, or if postage is to be paid by means of a postage meter machine, no fee is required but a permit must be gotten from the postmaster. The $10 permit and free permit are effective indefinitely provided not more than a period of one year elapses between successive mailings on which the permit is used.

THIRD AND FOURTH CLASS MAIL

RETURN AND FORWARDING CLAUSES: The clause "Return Postage Guaranteed" printed below corner card will bring undeliverable third and fourth class mail back to the sender. Rate for return of individual third class and bulk third class is 1½c for each 2 oz. or fraction thereof; and for books and catalogs it is 1c for each 2 oz. or fraction thereof. When fourth class mail is returned to sender, regular pound rates will be charged for its return. When the clause "Postmaster: If addressee has moved, notify sender on Form 3547. Postage for notice guaranteed" is used, the postmaster will notify the sender of new address to which addressee has moved and left a forwarding address. This notice will cost sender 2c. Mail will not be forwarded but will be destroyed the same as other undeliverable third class mail unless "Return Postage Guaranteed" clause is also used.

INSURANCE FEES FOR THIRD AND FOURTH CLASS: A mailable parcel on which the postage is fully prepaid may be insured against loss in an amount equivalent to its actual value at the following fees—Value up to $5, 3c; $5.01 to $25, 10c; $25.01 to $50, 15c; $50.01 to $200, 25c. Senders of insured mail must guarantee postage for its return or forwarding which may become necessary. Both postage and fee must be prepaid by stamps affixed to the parcel. Such mail may be insured at any post office or station thereof, or by rural carriers, but must not be deposited in street mail boxes or in mail drops at post offices.

C.O.D. SERVICE: The sender of a mailable package on which postage is fully prepaid may have the price of the article and the charges thereon collected from the addressee on the payment of the following fees: Amount to be collected up to $2.50, 15c; over $2.50 to $5, 20c; over $5 to $25, 30c; over $25 to $50, 40c; over $50 to $100, 50c; over $100 to $150, 55c; over $150 to $200, 60c.

SPECIAL DELIVERY FEES on second, third and fourth class mail: 2 lbs. or less, 17c; over 2 lbs. to 10 lbs., 25c; over 10 lbs., 35c. "Special Delivery" must be so endorsed.

SPECIAL HANDLING FEES applies to fourth class mail (parcel post) only. 2 lbs. or less, 10c; over 2 lbs. to 10 lbs., 15c; over 10 lbs., 20c. "Special Handling" must be so endorsed. Special Handling does not include Special Delivery.

DOMESTIC POSTAL INFORMATION AND RATES (Continued)

PARCEL POST or fourth class mail: The same identical type of matter included in third class mail is classified as fourth class, or parcel post, when the weight exceeds 8 oz. Must not exceed 70 lbs. in weight, nor 100 inches in length and girth combined. Also mailable matter not included in first or second class mail, weighing over 8 oz., including merchandise, books and catalogs, farm and factory products, circulars and other printed matter, seeds, cuttings, bulbs, roots, plants, etc.

RATES: Postage must be fully prepaid on fourth class mail. The rates are for individual pieces and are computed by the pound, according to distance or zone, a fraction of a pound being computed as a full pound, as follows:

		ZONES						
Weight In Pounds	Local	1-2 Up to 150 Miles	3 150 to 300 Miles	4 300 to 600 Miles	5 600 to 1,000 Miles	6 1,000 to 1,400 Miles	7 1,400 to 1,800 Miles	8 Over 1,800 Miles
1	$ .08	$ .09	$ .10	$ .11	$ .12	$ .13	$ .15	$ .16
2	.09	.11	.12	.15	.18	.20	.24	.27
3	.09	.12	.14	.18	.23	.27	.33	.38
4	.10	.13	.16	.22	.28	.34	.42	.49
5	.10	.14	.18	.25	.34	.41	.52	.61
6	.11	.15	.20	.29	.39	.48	.61	.72
7	.11	.16	.22	.32	.44	.56	.70	.83
8	.12	.17	.24	.36	.50	.63	.79	.95
9	.12	.18	.26	.39	.56	.70	.89	1.06
10	.13	.19	.28	.43	.61	.77	.98	1.17
11	.13	.20	.30	.46	.66	.84	1.07	1.29
12	.14	.22	.32	.50	.72	.92	1.16	1.40
13	.14	.23	.34	.54	.77	.99	1.26	1.51
14	.15	.24	.36	.58	.82	1.06	1.35	1.63
15	.15	.25	.38	.61	.89	1.13	1.44	1.74
16	.16	.26	.40	.65	.94	1.21	1.53	1.85
17	.16	.27	.42	.68	.99	1.28	1.63	1.97
18	.17	.28	.44	.72	1.05	1.35	1.72	2.08
19	.17	.29	.46	.75	1.10	1.42	1.81	2.19
20	.18	.30	.48	.79	1.15	1.49	1.91	2.31
21	.18	.31	.50	.82	1.21	1.57	2.00	2.42
22	.19	.33	.53	.87	1.27	1.64	2.09	2.53
23	.19	.34	.55	.90	1.32	1.71	2.18	2.65
24	.20	.35	.57	.94	1.37	1.78	2.28	2.76
25	.20	.36	.59	.97	1.43	1.85	2.37	2.87

For weights over 25 lbs. consult your postmaster

EXCEPTIONS: (1) In the first or second zone, where the distance by the shortest regular practicable mail route is 300 miles or more, the rate is the same as for the third zone; (2) On parcels collected on rural routes the postage is 2c less than shown in the foregoing table when for local delivery and 3c less per parcel when for other than local delivery provided they are endorsed "Mailed on rural route"; (3) Parcels weighing less than 10 lbs. measuring over 84 inches but not more than 100 inches in length and girth combined are subject to a minimum charge equal to that for a 10-lb. parcel for the zone to which addressed.

BOOKS of 24 or more pages consisting wholly of reading matter or reading matter with incidental blank spaces for students' notations and containing no advertising matter other than incidental announcements of books, in cloth, leather or paper binding, the limit of size being 100 inches in girth and length combined: 1 lb., 4c; 2 lbs., 7c; 3 lbs., 10c; 4 lbs., 13c; 5 lbs., 16c; 6 lbs., 19c; 7 lbs., 22c; 8 lbs., 25c; 9 lbs., 28c; 10 lbs., 31c; 11 lbs., 34c; 12 lbs., 37c; 13 lbs., 40c; 14 lbs., 43c; 15 lbs., 46c; 16 lbs., 49c; 17 lbs., 53c; 18 lbs., 56c; 19 lbs., 59c; 20 lbs., 62c; 21 lbs., 65c; 22 lbs., 68c; 23 lbs., 71c; 24 lbs., 74c; 25 lbs., 77c. For weights over 25 lbs., consult your postmaster.

A special rate is provided for library books, consisting wholly of reading matter and containing no advertising

DOMESTIC POSTAL INFORMATION AND RATES (Continued)

other than incidental announcements of books, when mailed to readers or as a service to other libraries by approved public libraries, organizations or associations not organized for profit, and when returned by libraries or readers, for delivery anywhere within the first, second or third zones, or within the State in which mailed: 4c for the first pound and 1c for each additional pound up to 47 lbs. The fee for 48 lbs. is 52c and 1c for each additional pound up to and including 70 lbs.

Catalogs and similar printed advertising matter in bound form, having 24 or more pages, weighing over 8 oz. but not exceeding 10 lbs., individually addressed:

Pounds	Local	1st	2nd	3rd	4th	5th	6th	7th	8th
1	$.05	$.05	$.05	$.06	$.07	$.08	$.09	$.10	$.11
2	.05½	.06	.06	.08	.10	.12	.14	.16	.18
3	.06	.07	.07	.10	.13	.16	.19	.22	.25
4	.06½	.08	.08	.12	.16	.20	.24	.28	.32
5	.07	.09	.09	.14	.19	.24	.29	.34	.39
6	.07½	.10	.10	.16	.22	.28	.34	.40	.46
7	.08	.11	.11	.18	.25	.32	.39	.46	.54
8	.08½	.12	.12	.20	.28	.36	.44	.53	.61
9	.09	.13	.13	.22	.31	.40	.49	.59	.68
10	.09½	.14	.14	.24	.34	.44	.55	.65	.75

Matter mailed at these rates should be clearly endorsed "Sec. 571, P. L. & R." in the upper right hand corner, immediately above the stamp or permit indicia, in order to distinguish the same from other fourth-class mail and prevent its being rated with deficient postage at the regular fourth-class rates.

Publications issued at regular intervals circulated free or mainly free, over 8 oz., when authorized as provided by Sec. 573, Postal Laws and Regulations, 9c lb. or fraction thereof, computed on entire bulk mailed at one time, but not less than 6c per piece.

SEALED THIRD AND FOURTH CLASS MAIL: Merchandise or other matter of the third or fourth class (except circulars and miscellaneous printed matter) may be mailed in sealed envelopes or packages at third or fourth class rates, provided inscriptions showing the nature of contents, authorizing opening for postal inspection, and bearing the name and address of the mailer, are printed on the envelope or package.

MISCELLANEOUS

MONEY ORDER FEES: The fees for issuing money orders are—From 1c to $2.50, 6c; from $2.51 to $5, 8c; from $5.01 to $10, 11c; from $10.01 to $20, 13c; from $20.01 to $40, 15c; from $40.01 to $60, 18c; from $60.01 to $80, 20c; from $80.01 to $100, 22c.

RURAL DELIVERY SERVICE: Mail by rural carriers is delivered to persons providing approved boxes erected on the line of travel of the carriers. It is required the boxes be so placed that they may be conveniently served by the carriers without leaving their conveyances, and shall be placed on the right hand side of the road in the direction of travel of the carriers in all cases where traffic conditions are such that it would be dangerous for the carriers to drive to the left to reach the boxes. On new rural routes all boxes shall be located on the right hand side of the road in the direction of travel of the carrier.

Boxes on rural routes should be grouped wherever possible, especially at or near crossroads or at other places on the routes where a considerable number of individual boxes are located. They should be placed about 3½ to 4 feet above the surface of the ground.

UNMAILABLE MATTER: Includes not only all legitimate matter not conforming to the rules as to legibility of address, size of package or certificates of inspection, but also pistols, revolvers, or other firearms that can be concealed on the person; and game, etc., killed out of season, poisons, explosive or inflammable articles, or bad smelling; all spirituous and malt liquors; all liquor advertisements to or from prohibition localities, indecent matter, written or otherwise; dunning postals and lottery, endless chain and fraud matter. (Consult postmaster for information as to the articles prohibited to foreign countries.)

POSTAL SAVINGS: $1 will open an interest-bearing account. Any person 10 years old or over may start an account. A married woman may deposit in her own name. Any number of dollars may be deposited, and at any time, until the balance to the credit of a depositor amounts to $2,500.

FORMULAS AND USEFUL TIPS

TO MAKE BLACK STARCH

Add some logwood extract (the quantity varying according to the depth of black desired and the amount of starch) to the starch before the starch mixture is boiled. A small amount of potassium bichromate dissolved in hot water or black iron liquor is also used to bring out the proper shade of black.

TO TEMPER STEEL

Heating steel red hot and dipping it in a mercury and bacon fat mixture (the consistency of salve), not only produces a remarkable degree of hardness but the steel retains its tenacity and an elasticity which cannot be obtained by any other means, 'tis said.

TEST FOR ACIDS OR ALKALIES

When the juice of the chokeberry is used as an indicator for bases or acids, a water infusion of the berries turns green when alkalies are added to it; light red when mixed with an acid. An infusion of purple cabbage leaves can also be used.

TINFOIL AS A SOLDER FOR SMALL ARTICLES

Moisten surfaces of small metal articles or parts to be soldered with a solution of sal ammoniac and then fit joint with tinfoil cut to the exact size, after which heat the metals sufficiently to melt the tinfoil. The surfaces, when cold, will be found firmly soldered together.

TO TELL NATURAL FROM CULTIVATED PEARLS

When natural and cultivated pearls are placed together in a solution of methyl iodide, all the pearls will float. When monobromide naphthaline is added drop by drop, cultivated pearls will fall to the bottom while natural pearls will keep floating. This method is claimed to have proven efficacious on fifty or more types.

POLISHING CLOTH

Melt together 1 lb. crude oleic acid, ½ oz. stearic acid and 1 oz. vaseline. Remove from fire and add ¼ oz. of cassia oil or methyl salicylate or terpineol. Dip in the mixture until thoroughly saturated a piece (18" x 36") of good weight canton flannel. Wring out thoroughly, fold and wrap in oiled paper.

TO MAKE GLUTEN GLUE

Place handful of flour in a piece of muslin and wash it with water, kneading flour until the wash water is no longer milky. Then place the gluten which remains on a glass dish to dry. To use, add a drop or two of water on a small flake, allowing it to stand 5 or 10 minutes. Knead it until soft and apply.

KEEP MACHINERY BRIGHT

Dissolve 1 oz. of camphor in 1 lb. of melted lard. Remove the scum that forms and stir in as much fine black lead as will give the mixture an iron color. Clean machinery to be treated and smear on mixture. After it has been on for 24 hours rub off with soft cloth. Under ordinary circumstances the mixture will keep machinery clean and "rustproof" for months.

GOT A MEERSCHAUM PIPE TO COLOR?

Fill the pipe with tobacco and smoke it slowly until about one-third or half-way down from the top of the pipe. Let the "unsmoked" tobacco remain in the pipe for several weeks without disturbing it—or until the desired color is obtained. In the meantime, if you wish to smoke your pipe, put fresh tobacco on top of the "unsmoked" tobacco in the pipe and smoke down to the same level as before. Never smoke a new meerschaum pipe outdoors in cold weather.

DARK LEATHER "RENEWER"

To make shabby dark leather look like new, try rubbing it with some linseed oil or a well-beaten white of an egg mixed with a little black ink or lampblack. Then polish with a soft cloth until dry and glossy.

REMOVING CREASES FROM PAPER

Smooth the paper out as much as possible by hand, place it on a clean sheet of paper on top of a well-covered ironing board and cover with another clean sheet. Then dampen a third sheet, place it on top of the others and press with a moderately warm iron. It's said that by exercising a little care creases can also be removed from fine engravings by this method.

R1, Columbia, Ala., July 5, 1945

I used 400 lbs. Royster's 6-8-4 per acre under 45 acres cotton this year, and am sure of making better than a bale per acre. You can always depend upon Royster's to do a good job. Take this year for instance—just as I was about through planting I ran out of Royster's and had to finish up with another make. Right now you can see the difference where Royster's and the other fertilizer was used. JACK McGRIFF

HOW'S YOUR "IQ"?

(Answers on Page 37)

1. What city in New England was once named Beantown?

2. What is the lower house of the legislature of the Irish Free State called?

3. Who was Dr. Edward Jenner?

4. Where and on what date was the "Battle Above the Clouds" fought?

5. What President of the United States was a tailor by trade?

6. What wood was the Ark made of?

7. Has the English Derby ever been won twice by the same horse?

8. Why is walnut used so much for gun stocks?

9. What was Voltaire's real name?

10. In what direction does a tornado usually travel?

11. What Signer of the Declaration of Independence was a noted musician?

12. What is the most abundant metal found in the earth?

13. What is the solid portion of the earth called?

14. What is the common name for nitrous oxide?

15. Which weighs more—a cubic foot of water at ordinary temperature or a cubic foot of ice?

16. Where is the highest steam navigated lake in the world?

17. Where, in the State of Massachusetts, does the British Government own a plot of land?

18. What famous caverns in the United States were discovered by millions of bats issuing from the entrance?

19. Who was Hippocrates?

20. Did installment selling originate in the United States?

21. Which one of the Presidents was the first to be recorded in newsreels?

22. The autogiro was invented by whom?

23. Is there any difference between the British inch and the U. S. inch?

24. What's the matter with you if you're a victim of alopecia?

25. What do they call the line on a ship that shows how deeply she may be safely loaded?

26. What is the approximate diameter of the moon?

27. Which one of our States is the only one to carry a coat-of-arms on its flag?

TIPS TO THE MAN WHO WEARS THE SUIT

Remember that keys carried every day in the hip pocket rub against chairs and wear holes through both pockets and outer cloth. Overloading stretches and strains pockets—sometimes tears the corners.

Pens and pencils need clips and well-fitting tops if they are not to stain or jab holes.

Thin pads on hard- or wood-bottom chairs save the seat of trousers from getting shiny so quickly.

A belt that fits easily through belt loops doesn't rub the loops fuzzy.

Trousers one-half inch above the heels don't get so much rub and wear longer about the lower edge than longer trousers.

A suit soaked in rain or snow should dry slowly in a well-ventilated room, away from heat. Brush suit well after drying.

HOW TO EXTINGUISH GASOLINE AND KEROSENE FIRES

Gasoline and kerosene fires are best extinguished by smothering. The following appliances are recommended for fighting such fires: Foam extinguishers, carbon dioxide extinguishers, vaporizing-liquid extinguishers (carbon tetrachloride base), loaded-stream extinguishers.

As the effective period of discharge of some of these extinguishers is comparatively short, you should know the location of the seat of the fire and be sufficiently close before putting extinguisher into operation. Otherwise the maximum effectiveness of the device will not be obtained.

It is important that only first-aid fire appliances bearing the label of the Underwriters' Laboratories be selected, properly operated and maintained.

In using extinguishers of the carbon dioxide and vaporizing-liquid types, especially in unventilated places such as small rooms, closets or confined spaces, operators and others should guard against breathing the vapor of liberated gases.

As a guide in determining the number and size of extinguishers needed, it is considered that one of the following units would provide protection against a flammable liquid fire likely to occur on the farm.

Two 1½-gal. or one 2½-gal. foam extinguishers.

Four 2-lb., two 4-lb., 7½-lb. or 10-lb., or one 15-lb. carbon dioxide extinguisher.

Two 1-qt., 1¼-qt., 1½ qt. or 2-qt. vaporizing-liquid extinguishers.

Two 1¾-gal. or 2½-gal. loaded-stream extinguishers.

Worthington, Ohio, June 21, 1945

At one time I figured all fertilizers of the same analysis were alike and it made no difference whose goods you used. That was before I started to use Royster's. I find Royster's drills perfectly at all times in either a grain drill or corn planter—every field gets an even distribution with the result that you get an even crop over the whole field. Royster's is the most profitable fertilizer I have used and I wouldn't want to farm without it. ROBERT W. ROBERTS

ECK DISK HARROW BEARINGS FOR "WEAR AND TEAR"

With the legs astraddle the disk gang, grasp the gang frame directly above the bearing that is to be "checked" or tested and jerk the frame up and down. If you can move the frame without lifting the disk gang, the bearing is worn and should be fixed.

After the grease fitting has been removed, take out the bolts holding the bearing halves together and disconnect the draft links and lever bars from the bearings. Pull bearing halves apart, take out old bushings and wash grease and dirt off bearing spool and bearing halves. Fit in new bushings, being sure to see that they fit down into their place properly. Thoroughly clean grease tube and then test to see if grease can be forced through the tube easily. Disks should be removed and sharpened before these parts are put back in place.

Many harrows are provided with wood bushings that have been treated with oil and graphite when manufactured. As a rule these type bushings require no further lubrication. However, all wooden bushings should be replaced before they have worn so the metal-bearing standard bears against the metal-bearing spool. Remember—wear should take place on the wood and not the metal.

All of the other disk bearings should be tested in the same manner and bushings replaced wherever necessary.

LIME AND THE SOIL

All soils that need lime do not need it for the same reason. As a result of liming, a soil may be benefited through the neutralization of its acidity, the supplying of available calcium when this element is deficient in the soil, or the improvement of its physical condition. In some cases all these effects will be obtained at the same time. In nearly all instances decomposition of the organic matter will be hastened.

The kind of soil and the results to be accomplished will determine in part the practice to be followed. Peats, muck soils and nearly all soils devoid of carbonate of lime and having poor drainage are likely to be decidedly acid, and the liming of these should be practiced with a view to neutralizing this acidity. A large application of lime may be needed for this purpose.

A heavy soil that has become compacted so that drainage and circulation of air are hindered should be limed to improve its physical condition. For that purpose comparatively small applications will be effective if the soil is not acid. It may be that the topsoil is in fairly good physical condition but the drainage is poor because of the presence of a hardpan or impervious layer below the surface. Surface applications of lime may remedy such conditions very slowly, if at all. In some such cases merely breaking the compacted layer may be sufficient to remedy the condition, but in others, drainage must be provided by ditching or tiling.

Even small applications of lime are likely to stimulate the decomposition of organic matter. This organic matter is of service because it decomposes, but to hasten its decomposition in a sandy soil that contains little organic matter is to rob future crops. For this reason lime in any form should not be applied to soils that are very low in organic matter, especially in warm, humid climates, without making provision to put organic matter in the form of manure or cover crops into the soil to keep up and if possible increase the supply of this necessary soil constituent.

ONION DISEASES AND THEIR CONTROL

Onion diseases in the field vary in kind and in intensity with the climatic, soil and other environmental factors in the various regions where onions are grown. Diseases of onions in transit and in storage vary with the variety of onions, farm practices and conditions of storage.

Onion smut, which remains alive in the soil for indefinite periods and is found in the Northern States from coast to coast, can be controlled by formaldehyde drip, but most of the other diseases are not readily controllable by chemical treatments. To supply consumers with adequate quantities of sound onions, reliance must be placed on crop rotation; timely cultivation; fertile soil; the use of resistant varieties and disease-free bulbs, sets and seeds; sanitation; steam sterilization; and proper methods of handling, curing and storage, as suggested in Farmers' Bulletin 1060, Onion Diseases and Their Control, a copy of which can be had by writing the United States Department of Agriculture, Washington 25, D. C.

Windsor, N. C., July 12, 1945

In 1944 I fertilized 67 acres peanuts with Royster Hi-Lime Crop Grower, 400 lbs. per acre, and made 1440 bags high quality, well matured peanuts—an average of 21½ bags an acre. These peanuts sold for 9.2c a pound. I've found that Royster Hi-Lime fertilizer increases my yield considerably, makes a very high quality peanut, and increases the hay yield more than enough to pay for the cost of the fertilizer. T. C. BELL

POULTRY NOTES

GOOD LICE "GETTER"

A fine line of 40% nicotine sulphate applied on the perches in the chicken coop or house just before roosting time has been found to be very effective in controlling lice. One ounce of the material will suffice for about 30 ft. of perch.

This method kills the lice and mites on the bird but must be repeated in 14 days to kill the "nits" that have hatched in the meantime. When feather mites are known to be present repeat every three days for three applications.

Do not use nicotine sulphate when the coop is cold enough for the water to freeze.—Extension Division, Michigan State College.

BROODING THE CHICKS

Day-old chicks from a hatchery or those hatched on the farm in an incubator must necessarily be brooded by artificial means. Chicks from a hatchery will usually arrive when they are 24 to 36 hours old and are ready to go into the brooder at once. If hatched in the home incubator, they should remain in the incubator until they are about that age.

Maintain a temperature of about 95° F. in the brooder and gradually reduce this until it reaches about 80° when the chicks are about 5 weeks old. The temperature after the first day or two should be governed largely by the action of the chicks. Crowding of the chicks to the outside of the brooder, panting or hard breathing indicates too much heat. Crowding and huddling about the heater indicates the need of more heat. The brooder is at the proper temperature at night when the chicks spread out around the heater or just inside the fringe of the hover. Keep the brooder stove going day and night so the chicks will have a warm place to go when they feel chilly. Use a wire screen to confine the chicks close to the brooder stove for the first 3 or 4 days until they learn to use the brooder.

Although heat is essential, it is also necessary that they have plenty of fresh air. The simplest method of supplying fresh air is to let the heating system provide circulation. Get the chicks out of doors as soon as possible, where they will get plenty of sunlight and fresh air.

Clean the brooder or brooder coop every week. Cover the floor with sand or litter to absorb the droppings. Keep the water dishes and feed trays clean.

Provide heat for the chicks until they are from 5 to 8 weeks old, depending on weather conditions and the development of the chicks. Provide low roosts to encourage the chicks to begin roosting before the brooder stove is removed.

A hen will brood from 10 to 15 chicks in cold weather and from 15 to 20 in warm weather. Provide each hen with a coop having an open front fitted with slats to allow the chicks to run outside. The hen is kept confined to the coop or a small covered yard may be attached to the coop. The chicks may be allowed to range after they are a few days old. The coop should be moved each week to fresh ground. A floor in the coop will help to keep the brood dry. Incubator chicks should be free from lice unless they are brooded in an infested yard or brooder house.

TURKEY "POINTERS" FOR THE "BEGINNER"

Choose birds with strong, fairly erect carriage, with shoulders the highest point on the entire back line.

A full, deep, well-rounded breast, carried well up so as not to give a forward-tilted appearance, is best.

The bird should have moderately short legs, stout of bone, placed well apart, with only back joints showing below the bodly line.

A smooth, tight feathering, showing a thrifty, sleek appearance, is recommended.

Birds to be retained for breeders should show the following points:

Fairly straight shaped keel in preference to rocker shape; keel long enough and extending sufficiently to the rear of the bird between the legs to prevent passing the hand edgewise past the rear of the keel and in front of the legs when the bird is held on the back.

Hazlet, N. J., June 25, 1945

We raise fruit and vegetables, and have been using Royster's over a period of ten years. We've observed on our fruit trees a better growth and color of foliage; and the yields have been good, too. This holds with the vegetable crops as well. This year we fertilized our 8 acres cabbage with Royster Prize Guano, 1000 lbs. to the acre, and made 200 50-lb. sacks of cabbage per acre. We feel Royster's is superior to other makes we've used.

WM. M. ACKERSON

POULTRY NOTES—(Continued)

Breast fully fleshed in all parts, preferably carrying the flesh well back to the rear of the keel as well as having a U-shaped breast at the front of the keel.

Hands placed along the back and middle of the keel should be approximately parallel rather than sloping to the rear.

Drumsticks moderately short, thick, and well-meated; shanks moderately short, and approximately the same length as keel bone of breast.

Fairly wide head, flat across the skull above the eyes, and eyes large, full and prominent, filling the eye socket.—Indiana Farmers' Guide.

PRODUCE HIGH-QUALITY EGGS

Careful management will do much to eliminate poor-quality eggs. Dirty poultry houses and dirty nests are the common causes of dirty eggs. Candling is the only means of detecting blood spots in market eggs. Blood rings are caused mostly by allowing the males to run with the flock during warm weather and by broody hens sitting on the nests that are used for laying hens. Musty and off-flavor eggs often result from storage in a poorly ventilated cellar or storage room.

Most of the conditions that cause bad eggs can be eliminated or improved. Such improvements usually pay for the extra cost ,by increasing the number of high-quality eggs from the flock. The following directions should help flock owners obtain better eggs.

Keep the hens in a comfortable, sanitary laying house and provide clean nests.

Gather the eggs regularly, preferably two or three times daily during warm or very cold weather and once daily at other times.

Keep the eggs in a cool place that is free from odors.

Keep all male birds out of the laying flock, except during the breeding season when hatching eggs are to be saved from the flock. Either kill or sell any males that are not to be held over for the next breeding season.

THE PULLETS' LAYING HOUSE

Pullets raised on clean land free from parasites and diseases are ready to begin a year of profitable production. They should have a clean house and comfortable quarters for the year's work. Before housing time the old birds should be culled out, the better hens moved to other quarters, and the laying house put in order for the new crop of pullets. It is not wise to put old hens and pullets together.

The laying houses must be thoroughly cleaned and disinfected. It is most important to remove all old litter and dust. The house should then be scrubbed thoroughly. Good physical cleaning may require a lot of "elbow grease," but there is no other way to get rid of the organisms that may infest the new stock. Chemical disinfection is important but it can be effective only after thorough cleaning. There are a number of good disinfectants that may be employed.

Fresh litter, both on the floor and in the nests, should then be supplied. The house should be repaired when cleaned. Feeders and waterers should also be scrubbed and put in repair.

Pullets should be housed about a month ahead of laying. This gives opportunity to get acquainted with new quarters and avoids any upset in laying.—C. L. Morgan in Southern Agriculturist.

POTATOES AS A CHICKEN FEED

Boiled or steamed potatoes make a palatable supplement to any ration for poultry either for fattening, growth or egg production. Raw potatoes are comparatively indigestible, unpalatable and not suitable for poultry feeding.

Boiled or steamed potatoes are especially desirable to use as a part of a moist mash because of the palatability they add to the feed mixture.

The daily feeding of a moist, warm, potato-mash-cod-liver-oil mixture is one of the most effective procedures for securing the extra feed consumption necessary for maintenance of winter egg production. Furthermore, the daily feeding of a moist mash permits the administering of fresh cod-liver oil or other vitamin A and D concentrates in accordance with the special winter requirements of these vital factors.

Chickens can hardly overeat of a wet mash composed of a large proportion of boiled potatoes; whereas, ill effects of overeating may often be experienced with more concentrated moist feed mixtures. Hence, when boiled potatoes constitute one-half or more of the moist mash by weight, they may be regarded as a safety factor.

That 4 to 5 lbs. of raw potatoes when cooked have an equal feeding value to 1 lb. of grain is substantiated by the actual dry matter content of potatoes as well as by feeding tests with poultry.—Ohio Agricultural Experiment Station.

> R1, Corinth, Miss., June 29, 1945
>
> Prior to last year I always used several different brands. As I invariably found that where I used Royster's I made more cotton and it paid me more per acre, I decided to use it exclusively under my 1944 cotton. My 38 acres fertilized with 300 lbs. Royster's 4-8-8 per acre made 76 bales cotton—the best crop I ever made. As the demand for Royster's is heavy in my county, I intend getting my fertilizer early next season so I'll be sure to have it. J. W. PHILLIPS

BRIEF DESCRIPTION OF SWEETPOTATO DISEASES

FIELD DISEASES

Stem Rot (Wilt): Discoloration of the young leaves and vascular bundles of the stem; wilting of the vines.

Black Rot: Blackish, more or less circular, somewhat sunken spots on the underground parts of plant; eventual rotting-off of stem.

Foot Rot: Small, brown to black spots eventually girdling the stem near the soil line; wilting of the plant.

Scurf: Brownish, superficial discoloration, or rusting, of the skin of sweetpotatoes; usually in spots.

Root Rot (Texas Root Rot): Firm, brown rot of sweetpotatoes; vines invaded 6 to 12 inches above ground.

Mottle Necrosis: Brownish, somewhat shrunken irregular spots on enlarged roots; a marbled chocolate-brown discoloration of the interior.

Soil Rot: Dwarfing of plants; black spots on rootlets; jagged pits of various sizes on fleshy roots.

Phyllosticta Leaf Blight: Angular or circular, brownish spots on the leaf with many black specks.

Septoria Leaf Spot: Small, circular, whitish spots on the leaf with one or more black specks.

White Rust: Whitish, more or less powdery, sometimes slimy, growth on the under side of leaf.

STORAGE ROTS

Soft Rot (Ring Rot): Soft, watery decay of sweetpotatoes.

Black Rot: Black, somewhat sunken spots on the sweetpotatoes, variable in size and form, sometimes penetrating a half inch.

Surface Rot: Circular spots; shallow rot; sweetpotato sometimes becoming hard and mummified.

Dry Rot: A firm, brown rot of sweetpotatoes, eventually becoming dry, hard and mummified.

Java Black Rot: A firm rot rendering sweetpotatoes dry, hard and brittle, and coal black inside.

Charcoal Rot: A black rot characterized by production of minute spherical bodies through the sweetpotato.

THE CARE OF PAINT BRUSHES

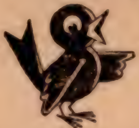
Paint brushes should never stand in the can overnight. Dip in the paint, wipe off on edge of can and wrap snugly in paper. The bristles should lay out flat and the paper turned over at the end of the bristles so they are entirely covered. Bristles of brushes allowed to stand in the can take on a curve which no amount of usage will straighten out.

Another "overnight" method is to run a small iron rod or stick through a hole in the top of the brush handle so the ends will rest on the edge of the can. This keeps the brush hanging upright in the can of paint and the bristles from "touching bottom" and curving.

If the brush is to be put away for several days, remove as much of the paint as possible by working the brush back-and-forth over an old, smooth board, after which clean with turpentine (never use benzine or gasoline—they take the life out of the bristles). After removing all the paint, dip brush in linseed oil, wrap up and lay it down flat on its side.

If the brush is to be put away for a long time, wash out with hot soap-and-water until perfectly clean.

CREAM THAT'S TOO SOUR MAKES POOR BUTTER



Good butter can be made only from good, clean-flavored cream. Thorough cleaning and sterilizing of all dairy utensils is essential to production of butter of good flavor.

Cream for butter making should contain about 30% butterfat. A gallon of such cream will yield about 3 lbs. butter.

Separate cream with a cream separator. Keep as cold as possible until time for ripening, then warm to 65-75 degrees Fahrenheit and hold at that temperature until a mild-acid flavor is developed.

Use a thermometer in order to know that proper temperatures have been obtained. The churning temperature should be such that churning will require from 30 to 40 minutes and butter granules will be firm without being hard. A temperature of 52° to 60° F. in summer and from 58° to 66° F. in winter is about right.

Clean, scald and cool all churning utensils before using.

Stop churn when butter granules are the size of grains of wheat.

Wash butter, in granular condition, twice with pure water at about the same temperature as the buttermilk. Buttermilk should be washed out, not worked out.

Add salt at the rate of about ¾ oz. to each pound of butter. Then work butter until salt is evenly distributed and a solid, smooth body is formed.—Extension Service, Alabama Polytechnic Institute.

R2, Wolcottville, Ind., June 8, 1945

My 26 acres of potatoes last year, fertilized with Royster's at the rate of 800 lbs. per acre, produced 11,000 bushels of fine quality potatoes. I used it again this year. It was not only in the finest drilling condition, but the appearance of my growing crops prove that it also has the stuff in it to produce good crops. Royster's is better than anything I've ever used. JAMES F. WIBLE

"IQ" ANSWERS

1. Danbury, Conn.
2. Dail Eireann.
3. The noted British physician and scientist who discovered vaccination for smallpox.
4. Lookout Mountain; November 24, 1863.
5. Andrew Johnson, our 17th President.
6. Gopher wood.
7. No, because this is a race for 3-year-olds.
8. Because it absorbs a recoil better than any other wood.
9. Francois Marie Arouet.
10. From southwest to northwest.
11. Francis Hopkinson.
12. Aluminum.
13. Lithosphere.
14. Laughing Gas.
15. A cu. ft. of water weighs 62½ lbs.; a cu. ft. of ice, 57.2 lbs.
16. Between Peru and Bolivia at an altitude of 12,545 ft.—Lake Titicaca.
17. Near Concord Bridge where 13 of her soldiers are buried, killed in the famous battle in 1775.
18. Carlsbad Caverns in New Mexico.
19. A famous Greek physician who lived around 450 B. C.; sometimes called "The Father of Medicine."
20. No. Installment selling was imported from Paris over a century ago.
21. President McKinley.
22. Juan de la Cierva.
23. Yes, a slight difference, the British inch being .000113 of a meter longer.
24. Baldness.
25. The Plimsoll Line.
26. About 2,000 miles.
27. The State of Maryland; its flag carries the Calvert coat-of-arms.

WHEN TO PRUNE GRAPEVINES

Pruning begins when plants are set in the ground, and should be practiced annually thereafter as long as the vineyard or vines are maintained.

The vines should be dormant at time of pruning, and for this reason the winter and early spring months are most favorable for the work. Vines should not be pruned when the canes are frozen. In northern sections of the country, pruning should not be done until danger of excessively low temperatures is past, as a hard freeze following the pruning may result in partial killing of the pruned canes. In areas where extremely low winter temperatures are not encountered, pruning may be done any time after the leaves have fallen in the late fall on until early spring; however, it should be completed before the buds begin to swell. Excessive bleeding, which occurs when pruning has been too long delayed, is to be avoided.

Pruning during the summer months, except to remove water sprouts and suckers and occasionally to control too rampant a growth of some part of the vine, should not be practiced. The vine depends upon its chlorophyll-bearing leaves and tissues to manufacture the organic foods required to meet its present needs, to supply the carbohydrates necessary for the maturing of the fruit, and to provide the food reserves that must be stored in the vine to assure a favorable start on the following season's activities. Consequently, an abundance of foliage is necessary, and anything that reduces the amount of chlorophyll-bearing tissue, whether it be summer pruning, attacks of injurious insects, or fungus diseases or other plant pests, hinders by that much the normal functioning of the vine. Judicious pruning while the vine is still dormant will ordinarily keep the following season's growth within reasonable bounds and assure sufficient foliage to meet all the needs, provided diseases and pests are held in check.

STAIN "ABSORBENTS"

Such substances as chalk, magnesium carbonate, fuller's earth and corn meal are known as absorbents. When spread on stained fabrics, these often absorb the staining material. They can then be brushed off readily. Such materials are effective if the stain is light or freshly made, but they cannot be relied upon when it is set or very extensive. They are harmless to all fibers.

To use the absorbent powders, lay the stained fabric upon a flat surface and spread a layer of the absorbent over the stain. Work it around gently so as not to pull the fibers. As soon as it becomes gummy, shake or brush it off and repeat the process until the bulk of the stain is removed. Then apply another layer of the absorbent and allow it to remain overnight, or longer if necessary. This removes all traces of the stain, and in the case of slight stains the preliminary treatment is unnecessary. Then dust or brush off the absorbent thoroughly.

If it is not convenient to let the stain stand overnight, place a layer of cloth or brown paper over the absorbent and apply a warm (not hot) iron for several minutes. In the case of stains made by solid fats, which must be melted before they can be absorbed, the use of the warm iron is necessary.

R1, Cherryville, N. C., June 14, 1945

It pays to use a good fertilizer like Royster's and plenty of it! Each year for the past five years I have picked anywhere from 44 to 48 bales averaging 500 lbs. or more from the 25 acres I planted to cotton. I use 800 lbs. Royster Kingfish per acre and side dress later with soda. In my opinion you just can't beat Royster's for drilling and for feeding crops right on through to maturity.

BEN F. BAXTER

THE HOUSEWIFE'S SECTION

HOW TO RESTORE PIN STRIPES IN A SUIT

Pin stripes worn off at the knees, elbows or seat of a suit can be restored by machine. Since the material is likely to be worn a bit in these places it is a good idea to reinforce them at the same time.

Cut rayon lining pieces the proper size and baste them underneath the places to be restriped. Thread the bobbin of the machine with white thread and use a spool of thread that matches the suiting for the top stitching. Tighten the top tension of the machine so that the white thread underneath is drawn to the surface and gives the same effect as the stripe. Experiment until you get the right tension adjustment, then stitch along the old stripe lines. Tie and clip off the thread ends on the inside of the suit.

CLEANING AND CARING FOR PAINTED AND VARNISHED SURFACES

The procedure for washing painted, varnished or lacquered surfaces is the same whether they are on furniture, wood trim, walls or floors. Make a light suds with a mild, neutral soap such as that used for fine fabrics. Wash the surface no harder than is necessary to wash off the dirt. Rinse away every trace of soap with clear water because soapy water leaves a film to catch and hold dirt. Wipe the surface dry with a clean, soft cloth. Use water as sparingly as though it were an expensive cleaning material. Wash only a small area at a time so water will not be left standing on the surface any longer than is absolutely necessary. Floors should never be flooded with water. The best linoleum can soon be ruined if harsh soap or too much water is used on it, and cheap linoleum can be made to wear a long time if the surface is protected.

When painted wall, wood trim or wood floors are very dirty, it may be necessary to add a little trisodium phosphate, or other alkaline cleansing agent to the soap and water. These alkaline materials never should be used on furniture or on linoleum or similar floor coverings.

Walls and wood trim should be washed from the bottom up. When water runs down on a soiled surface it leaves streaks that are difficult or impossible to remove. It will not stain a wall that has already been moistened and cleaned.

It is easier to wash and rinse these surfaces with soft sponges than with cloths because good sponges are more absorbent. Two pails should be used, one for suds and one for rinse water. The water should be changed frequently for it is impossible to cleanse anything with dirty water.

After painted walls have been washed, a thin coat of ordinary laundry starch may be applied with a paint brush. The next time the wall needs washing, the job is much easier because the dirt washes off with the starch. Any flat finish will have more gloss after it is washed, for it is impossible not to exert some polishing action.

Varnished, shellacked and lacquered surfaces, as well as linoleum and cork, are preserved and made easier to care for if they are kept waxed. All waxes should be applied in thin coats. Traffic lanes need rewaxing more frequently than other parts of a room. Kitchen linoleum may need a coat of self-polishing wax every two weeks where traffic is heaviest, and once a month over the rest of the floor. On other floors, liquid or paste wax should be applied once in four to six months, depending on the wear they get. Liquid wax is easier to use on furniture; finger marks can be rubbed off with a clean cloth and ordinarily the wax needs to be applied only once a year.

SOME HEMMING "TIPS"

Before you hem your dress, let it hang for a day or two to stretch the seams. Then they're not so likely to sag afterward.

Press entire dress carefully, making sure to press the seams flat.

When you are ready to put the dress on for marking the hem, be sure you have on the same kind of shoes and underclothes you will be wearing with the dress.

Have someone measure with a ruler, yardstick or skirt marker the distance from the floor you want the skirt line to be. Have her mark the line with pins all around the skirt, about 3 in. apart. Or use one of the markers that you can work yourself.

Nashville, Ga., June 29, 1945

Although my land has been cropped for years and years, I still make the pounds and quality—thanks to Royster's. I used 1000 lbs. Royster Bonanza per acre under tobacco this year and will make from 1600 to 1700 lbs. of tobacco to the acre. I have used Royster's for on to 30 years. I like it because it gets your crop off to an early start, stays by it throughout the growing season and matures tobacco early. W. G. CONNELL

THE HOUSEWIFE'S SECTION—(Continued)

Turn up hem on this pin line. Pin. Try on dress to be sure skirt hangs evenly and the length is right.

Baste hem at the bottom, take out the pins and press the fold.

Even off turned up part of hem to about 1½ or 2 in. all around. Turn cut edge under ¼ in. Press. Machine-stitch about 1/16 in. from turned-under edge.

Pin and baste the hem to the skirt, matching the seams. Baste in fullness where necessary with small pleats. Press hem in an up and down direction. Crosswise pressing may stretch the hem.

Use slip stitch to sew hem to dress.

Other ways to finish the cut edge of the hem: For nonwashable dresses, finish hem with a seam binding. Baste lower edge of binding to the cut edge of hem, overlapping binding and hem about ¼ in. Machine-stitch. Then baste the upper edge of the binding to the skirt and catch-stitch. Silk or rayon thread is best for these hems because it doesn't roughen or break.

Dresses that have tailored double stitching as a part of the dress design may also have double-stitched hems. Trim hem to ½ in. Turn cut edge under ¼ in. and crease with your thumbnail if material is firm. Baste hem to dress. Make first row of stitching around bottom of hem and second row an even distance from first row, wide enough to catch in top of hem. Stitch on the right side of the dress and use a seam guide or the presser foot as a guide.

Short sleeves may be hemmed the same as skirt hems. Make the hem about 1 in. wide when finished.

HOW DO YOU MAKE LINED CURTAINS?

House cleaning time seems to be the logical season for new curtains or to remodel the old ones. The question is often asked, how do you make lined curtains? Here is the method:

Measure the window between the points the curtain is to cover. Allow 1 in. for a turn at the top and 2½ in. for a hem at the bottom. Cut the lining 1 in. shorter and 3 in. narrower than the curtain width.

Hem the outside piece and the lining separately at the bottom, but sew the lining to the curtain in a seam at the side allowing the outside material to extend an inch below the lining at the bottom. Close the upper end of the curtain in a seam with the outside material again extending over the lining at least an inch. This helps to allow for any difference in shrinking. — Lucile Smith in The Ohio Farmer.

SUMMER LAUNDRY AID

Warm weather often brings the mildew problem to the homemaker. Ironing within a few short hours after sprinkling the clothes will avoid trouble. If mildew is encountered, these bleaches may be used:

Washing in fresh soap and water if the spots are fresh.

Soaking the stains in sour milk and placing in the sun without rinsing will remove slight stains. It may be necessary to repeat this method.

Putting lemon juice and salt on the spots and allowing the garment to remain in the sun also will remove slight stains.

A laundry bleach will be necessary for removing old stains. Directions on the bottle should be followed when such commercial preparations are used.—Michigan Farmer.

HOW TO REPAIR A THREE-CORNER TEAR

If the tear is not frayed badly, the best way to mend it is to seam by barely catching a yarn or two inside the frayed edge. Steam-press the seams open, clip off any thick corners. From the right side, hide the seam line with the rantering stitch (Pinch seam line between the thumb and forefinger, and stitch back and forth over it in a V direction. Be careful to pick up only one yarn on each side of the seam line. Pull the thread up close. This is known as the rantering stitch).

If the tear is badly frayed, or if the suiting is so heavy that a seam would be thick, machine-darn the tear to a matching piece of suiting or a piece of lining.

Baste a piece of matching cloth or lining under the tear. Arrange any loose yarns so that you will stitch over them. Thread the machine with carefully-matched thread. Stitch back and forth over the tear and deep enough into the material so that it will be sure to hold. To stitch backwards, barely lift the presser foot, then move the material forward slowly enough to get stitches of the right size. Lower the foot again to stitch forward. This is quicker than turning your work or using the lever that some machines have for stitching in reverse.

R1, Salisbury, Md., June 6, 1945

Yes, we have tried other makes alongside of Royster's but have yet to find anything to surpass it. We have always made large yields and quality crops with Royster's. In 1944 on 30 acres of sweetpotatoes, we averaged a yield of 372 bus. #1's to the acre which cleared of all expenses $320.60 an acre. These "sweets" were grown with 1700 lbs. of Royster's to the acre.

MARION L. TOWNSEND

CONTROL INTERNAL SWINE PARASITES!

Swine owners who take special precautions to prevent their young pigs from becoming infested with parasites reap greater profits from their animals by being able to raise to market age more pigs from each litter. There is also a saving in feed, since healthy animals mature and fatten on less than is needed by parasitized pigs.

Bladder-worm infestation may be prevented by the use of modern sanitary sewage disposal or sanitary privies on farms and in rural communities, and by restricting the wanderings of dogs so as to keep these animals off hog pastures. Periodic treatment of dogs for the removal of tapeworms is an additional precaution.

Sanitation, involving the use of temporary pastures sown to suitable forage crops, selecting pastures that are well-drained, and keeping them free from trash and litter are fundamental methods of controlling Protozoa, stomach worms, intestinal roundworms, threadworms, whipworms, thorn-headed worms, nodular worms, kidney worms, lungworms and trichinae.

The use of pastures with bare areas is an additional precaution and affords an effective and practical method of controlling kidney worms. This method should be followed on hog pastures in the South.

If temporary pastures cannot be made available, permanent pastures from which hogs have been excluded for at least a year may be substituted. Suckling pigs should be protected from association with older hogs other than their mothers. After weaning and until they are ready for market, the pigs should still be protected from association with other hogs, and especially with the older breeding stock.

The pastures should have good fences to keep the pigs from getting into low, wet areas. Such areas are dangerous because they harbor earthworms, grubs and adult insects which convey, respectively, lungworms, thorn-headed worms and stomach worms to swine. Wet areas in certain regions may harbor snails that convey liver flukes and crayfishes that convey lung flukes to swine.

Clean, well-fenced temporary pastures sown to suitable forage crops tend to reduce parasitic infestation to a low level. Adequate supplemental feeding helps to minimize the effects of parasitism, and by reducing the tendency of pigs to search for food by rooting protects them to a considerable degree from lungworms and thorn-headed worms. These worms spend part of their life cycles in earthworms and white grubs, respectively. Ringing the noses of pigs is a well-known method of preventing rooting.

The avoidance of uncooked pork in hog feed, the proper disposal of offal from hogs slaughtered on the farm and in country slaughterhouses, keeping rats and mice out of hog lots and the burning or deep burial of dead hogs will tend to reduce trichinosis in hogs. A rigid adherence to the swine sanitation system will control trichinosis effectively.

As a number of the parasites discussed herein are transmissible to human beings, a strict adherence to the sanitation system of management is important not only in the interest of proper swine husbandry but also for safeguarding human health.

DISOWNED OR ORPHAN LAMBS

Frequently a ewe disowns her lamb or dies. Occasionally triplets are born. In either instance, it is desirable to transfer a lamb to another ewe. There are various methods employed to encourage the ewe to "own" the lamb. Smearing some odoriferous material, or ewe's milk on the lamb's back and on the ewe's nose, giving them both the same scent, frequently results in the ewe's "owning" the lamb. Bringing a strange dog into the barn to frighten the lamb will arouse the "mother" instinct of the ewe, resulting in her assuming the defense of the lamb and "owning" it. If a lamb dies, remove the pelt from the dead lamb and fasten it over the body of the disowned or orphan lamb. The pelt can usually be removed from the adopted lamb in two or three days.

The ewe and adopted lamb

(Continued on Page 44)

R2, Chester, S. C., June 29, 1945

I would rather have Royster's than any brand I know of. Why? Because I get a better yield per pound of fertilizer used than most of the people in my community do from the brands they use. It looks like a bale per acre this year on the 32 acres I put in cotton and fertilized with Royster Ideal, 300 lbs. to the acre. I find that Royster's is easier to put down, too. FRED McKEOWN

FUN FOR THE YOUNG FOLKS

CHANGING AN EGG INTO CONFETTI

Holding an ordinary egg in front of him the "magician" tells his audience to watch carefully as he is going to change the egg into confetti. Placing the egg in the palm of his hand he squeezes and a shower of confetti pours forth into a box or some other receptacle. By passing his other hand over and around the "palmed" egg while performing the trick, the "magician" makes it more impressive.

For this trick, get an egg and punch a tiny hole in both ends. Then blow contents of egg into a cup, after which carefully enlarge one of the holes in the egg and pour in some bits of paper or confetti.

When showing the "doctored" egg to his audience, the "magician" should be sure to hold it between the tips of his thumb and forefinger so as to cover the holes and keep the contents from spilling. When the egg is squeezed the broken egg-shell is allowed to fall out of the hand along with the confetti.

A GOOD DICE TRICK

Put three dice (those from a parchesi game will do) in a clear drinking glass and cover the open end with the palm of your hand. Shake the dice up and down. Then ask someone to look up through the glass and count (to himself and not out loud) the number of spots on the bottom of the dice. Now tell him the number of spots he saw by adding the top sides of the dice and subtracting your total from 21, which will give the total of the bottoms.

CALENDAR TOSS

Thumbtack to the floor a sheet from a large wall calendar (showing one month of days) with the figures facing the players. If the days or numbers are not enclosed in squares, rule off boxes for each date or number.

A line 10 or 12 feet from the calendar is designated as the "Starting Point." The players are each given six or more checkers and in turn pitch or toss his supply of "chips," trying to land them on the highest numbered squares. A "Scorekeeper" is named and keeps a record of each player's score, and the one making the most points in 10 innings wins.

If one of the checkers lands partly in one box and partly in another, the number of the box in which most of the checker lies is scored. If one checker hits another and knocks it from one square to another, the player scores according to what boxes all of his men lie in after they all have been thrown.

CONTACT TELEPATHY

Two people are required—one to act as the "Sender," the other as the "Receiver." While the "Receiver" is out of the room someone gives the "Sender" a number from one to twenty. After the "Sender" is seated, the "Receiver" is brought in blindfolded and allowed to place his finger tips upon the temples of the "Sender." After a few minutes the "Receiver" announces the number.

Here's the secret of the trick: By tightening his lower jaw the "Sender" causes his temples to press against the finger tips of the "Receiver," transmitting on to the "Receiver" the number selected. For example, say the number selected was five; the "Sender" being careful not to move his lips, tightens his jaws (bites hard on his teeth) five times, thus indicating to the "Receiver" the number given the "Sender."

HERE'S A GOOD "CATCHER"

Ask someone to spell quickly folk, poke, joke, stoke, and then before he has had time to think ask him to spell the white of an egg. Nine out of ten times he'll spell y-o-l-k, which, as you know, doesn't spell the white of an egg.

BUTTON GOLF

This game is played on the carpet or a large rug. Cut the date numbers from a sheet of an old calendar—from 1 to 9—and paste them on the outside of nine cups. Spread out the nine cups to represent a 9-hole golf course—spacing some of the cups two or three feet away and some farther apart. A special spot is designated on the rug somewhere in front of Cup #1 as the "tee" or starting point for that cup, following the same procedure for the other cups.

The first player taking a large button presses down on the edge of a smaller one to make it shoot forward tiddly-wink fashion. The players take turns and the one who completes the 9-hole course with the least number of strokes wins.

> Abbeville, Ala., July 5, 1945
>
> When I use Royster's I never worry about results. This year I have 35 acres cotton fertilized with 500 lbs. per acre of Royster's 4-10-7. It's the best cotton in my community and should easily make a bale to the acre—the stalk is just loaded with fruit. I have used many other brands when I couldn't get Royster's—none could compare with Royster's. G. C. ARNOLD

SOME TASTY RECIPES—TRY 'EM

CANNING SAUSAGE

The ground meat should be seasoned just the same as for frying, then made into balls and placed in fruit jars. Put lids on the jars and cook for three hours (cold pack method). As this boiling will bring out plenty of grease, no other liquid will be needed. After the jars are taken out of the boiling water, stand them upside down until cold so as to allow the grease to settle on top of the sausage.

HONEY APPLE PIE

3 cups apples; ¼ teaspoon salt; 1 tablespoon lemon juice; 3 tablespoons grated lemon rind; ½ cup honey; ½ teaspoon cinnamon; 1 tablespoon butter.

After quartering and paring apples, slice in ⅛-inch slices. Then line a 9-inch pie pan with pastry and place in the sliced apples. Add salt, lemon juice and grated lemon rind to honey and pour over the apples. Sprinkle cinnamon over the top and dot with butter. Add a perforated upper crust (pushing it toward the center), press edges together and trim. Bake in hot oven for 10 minutes, then about 50 minutes at 350° F.—until the crust is slightly browned and fruit is soft.

SOME CAKE BAKING TIPS

Always use standard measuring equipment and level measurements.

Flour should be sifted at least once before measuring.

Be sure ingredients are at room temperature—eggs will have more volume; shortening will blend in quicker.

When recipes say, "Add dry and liquid ingredients alternately," begin and end with dry ingredients; beat after each addition just enough to mix. This prevents curdling and results in a better textured cake.

Cake will shrink slightly from the sides of the pan when done, and surface will spring back when pressed lightly with the forefinger. Nor will batter adhere to a wire cake tester or toothpick thrust into the center.

Remove cakes containing fat from pans immediately and allow to cool on racks.

Angel and sponge cakes after being taken out of the oven should remain in their pans but inverted on cake racks for about an hour. Remove with a spatula or "pancake turner."

CHEESE PIN WHEELS

After making up a batch of biscuit dough by one of the standard recipes, pat out to a ¼-inch thickness. Then spread grated cheese over the dough and roll up as for a jelly roll. Cut roll up into ½-inch slices and bake in a greased pan like regular biscuits.

SHEPHERD'S PIE

4 cups mashed potatoes; 1 egg (beaten, without separating); 3 cups ground canned meat (beef, lamb or pork); ½ cup bread crumbs; ¼ cup chopped onion; ½ cup diced carrot (cooked in salted water); ½ teaspoon salt; ½ cup milk or beef stock.

Grease lightly a baking dish with fat from the can or butter, then line with part of the potatoes. Mix together the beaten egg, meat, bread crumbs, onion, carrot, salt and milk or broth. Put into baking dish and cover with the remaining potatoes. Bake in moderate oven (350° F.) 30 to 40 minutes or until brown.

SOME RAW VEGETABLE COMBINATIONS

Tomato and Lettuce: Serve sliced tomatoes with lettuce, water cress or endive around platter with a cottage cheese mixture in the center.

Combination Salad: 3 tomatoes, 1 cucumber, ½ onion. Slice and serve on lettuce with French dressing.

Swiss Chard Salad: 1 quart shredded Swiss chard, ½ cup chopped onion, 1 chopped sweet pepper. Mix and serve with French dressing.

Tomatoes stuffed with cabbage salad, cottage cheese or leftover chicken are mighty tasty, too.

SHRIMP CREOLE

1 lb. green shrimp; 2 tablespoons melted butter; 1 cup chopped onion; ⅓ cup chopped green pepper; ½ clove garlic chopped; 1 pt. stewed tomatoes (drained); ⅛ teaspoon paprika; 1 teaspoon salt; ⅛ teaspoon pepper.

Peel shrimp, wash and remove sand vein. Cook the onion, green pepper and garlic in the butter until the pepper is tender. Then add the tomatoes, shrimp and seasoning, simmer for 20 minutes or until shrimp are tender. If precooked shrimp is used, add after the sauce has been prepared.

R2, Imlay City, Mich., June 14, 1945

Last year I used Royster's 0-9-27, 800 lbs. per acre, on my 10 acres of potatoes on muck soil—placing the entire amount under the row in one application. They came up quickly, looked healthy from the start and I harvested an average of 400 bus. per acre. This is the eleventh continuous year I have used Royster's—always with good results.

BERT ELLING

SOME TASTY RECIPES—TRY 'EM—(Continued)

HOW TO WHIP LIGHT CREAM

1½ teaspoons granulated gelatin; ¼ cup milk; 1 cup light cream; dash of salt.

Place gelatin in a small bowl and add the milk gradually, mixing well. Heat over boiling water until gelatin is completely dissolved (stirring constantly); remove, add cream and salt, and mix. Then place in bowl of ice and water and whip at once.

SACCHARINE PICKLES

1 gal. vinegar; 1 scant cup salt; 1 tablespoon saccharine; 1 tablespoon mixed spices; cucumbers.

Put vinegar, salt and mixed spices in a kettle and bring to a boil, then remove from the stove until entirely cold, after which stir in the saccharine. Pack cucumbers in sterilized jars, pour over the prepared vinegar and seal cold. In sweet-pickle making, sugar tends to shrivel cucumbers; saccharine keeps them plump and fresh.

COUNTRY STYLE LIVER

4 slices bacon; 2 tablespoons flour; 1 teaspoon salt; ⅛ teaspoon pepper; 2 cups milk; 1 lb. sliced liver; ¼ cup buttered crumbs.

Cut bacon in squares and fry in heavy skillet until crisp. Then remove the bacon and add flour, salt and pepper, stirring until smooth. Gradually add milk and cook until thick and smooth. Roll liver slices in flour and brown in bacon fat. Place alternate layers of liver, bacon and gravy in a buttered casserole. Top with buttered crumbs and bake in moderate oven (350° F.) for about 45 minutes or until tender.

GREEN-TOMATO MINCEMEAT

3 lbs. green tomatoes (chopped); 3 lbs. apples (chopped); 2 lbs. raisins; 1 cup suet; 1 cup vinegar; 2 lbs. brown sugar; 2 tablespoons salt; 2 tablespoons ground cinnamon; 2 teaspoons ground cloves; 1 grated nutmeg; orange peel if desired.

Drain chopped tomatoes well. Measure the juice; discard and add the same volume of water to tomato pulp. Bring this mixture to a boil and then drain it. Repeat twice more this process of adding fresh water, scalding and draining. Then add other ingredients and cook the mixture until clear and thick. This mincemeat will keep in covered jar.

COTTAGE CHEESE DRESSING

1 pt. cottage cheese; 1/3 cup chopped green onions; ¼ cup sliced radishes; 1 tablespoon horse-radish; 2 tablespoons mayonnaise or cooked salad dressing.

Add onions, radishes, horse-radish and mayonnaise or cooked salad dressing to the cottage cheese and mix well. Then add to a good-sized bowl of lettuce; toss lightly until mixed and serve.

YUM-YUMS

1 cup brown sugar; 2/3 cup flour; 2 eggs (beaten); ½ teaspoon salt; 1 cup nut meats (finely shaved).

Mix sugar and flour, then add the eggs, salt and nuts and pour into a greased pan (8" x 8"). Bake slowly (250° F.) for 30 minutes. Sprinkle powdered sugar over top and cut into squares.

SOUR CREAM RAISIN PIE

2 eggs (beaten slightly); 1 cup seeded raisins (cooked and drained); ½ cup honey; ¼ teaspoon salt; 1 teaspoon cinnamon; ½ teaspoon nutmeg; 1 cup sour cream.

Mix together well all the above ingredients and pour into 9-inch unbaked shell or pie-crust. Bake in hot oven (450° F.) for 10 minutes. Reduce the heat to moderate (350° F.) and continue baking about 35 minutes or until knife inserted in center comes out clean.

SUGARLESS MUFFINS

¾ cup flour (sifted); 1/3 cup cornmeal; 3 teaspoons baking powder; ½ teaspoon salt; ¼ cup prepared apple; 1 egg (well beaten); 1/3 cup milk; ¼ cup honey; 3 tablespoons melted shortening.

Sift together flour, cornmeal, baking powder and salt. Wash, pare and cut apple into eighths. Remove core and cut crosswise in very thin slices. Combine egg, milk and honey. Add to dry ingredients and stir only enough to dampen well. Stir in melted shortening. Fold in apple. Fill well-greased muffin tins two-thirds full and bake in a moderately hot oven (400° F.) for 20 minutes.

POPCORN BALLS

½ cup sugar; 1 cup molasses; 2 tablespoons vinegar; 2 tablespoons butter; ½ cup water; ¼ teaspoon baking powder; 3 quarts popped corn.

Mix all ingredients except unsalted corn. Boil gently and without stirring until a tested portion forms a hard ball in cold water. Add soda and mix. While foamy, pour over the corn and mix thoroughly. Press into balls.

> R2, Staunton, Va., June 11, 1945
>
> My crop of small grain last year was excellent, thrashing out 3000 bushels. The 70 acres I had in wheat and fertilized with 325 lbs. Royster Triumph per acre, yielded 30 bus. per acre. This wheat was of nice quality with well-filled heads. I like Royster's because it's always in fine drilling condition and gives such good results.
>
> EDWIN L. OTT

NEVER TOO COLD TO SNOW

While it does, quite frequently, get too cold for snow to fall in "flakes," it never gets too cold to snow.

"Snowflakes" fall when passing through air that is 32° F. or slightly lower. The air at this temperature usually holds sufficient moisture to permit the "flakes" to become large and mat together

The air becomes drier as the temperature lowers and the snowfall lighter and fine and powdery. A heavy snowfall is very rare when the temperature is below zero. Snow that does fall, however, is either in the form of "ice needles" or fills the air with fine glittering "dust" due to the fact that sub-zero temperatures are too dry to produce "flakes."

Snow has fallen in Little America at 65° below, in Alaska when well under 50° below and in Eastern Siberia where the temperature averages under 40° below. Verkhoyansk, known as the "coldest place in the world" and within this Siberian section, has had snow despite a recorded winter temperature of 94° below.

WATCH FOR PLANT INJURY FROM INSECTICIDES

Insecticides, especially when improperly prepared or applied, may injure the plant foliage and flowers. Insecticides are seldom if ever beneficial to the plant itself, and they are good and useful only insofar as they remove the dangerous and destructive pests with a minimum of damage to the plant.

The choice and purity of the materials and the care exercised in their preparation and application influence the results obtained. The margin of safety between the effective dosage required to kill the insect and the tolerance of the plant to the insecticide is often very narrow. Some plants will tolerate more insecticides than others. For example, beans are likely to be damaged by treatment with arsenicals whereas potato and cabbage will withstand comparatively large dosages of such materials. The factor of plant tolerance, as well as the effect of the insecticide on the insect, must be considered in pest control. Oftentimes the plant tolerance limits the general use of an insecticide. For example, lead arsenate and calcium arsenate will control the Mexican bean beetle, but under climatic conditions both these materials may cause plant injury. Magnesium arsenate, while satisfactory on beans under most conditions, will cause plant injury to peach and apple trees. Hydrated lime is used with the arsenicals as a means of offsetting foliage injury; but it should not be used with the fluorine compounds.

Sulfur may cause injury to the foliage of squashes, melons and cucumbers, and to the fruits of rasperry, as well as to the tender growth and blossoms of roses and various other flowering plants.

Many plants will not tolerate oil sprays, especially when repeated applications are necessary.

Rotenone — and pyrethrum — containing sprays and dusts, and hellebore, are tolerated by most plants.

Either sodium fluosilicate or barium fluosilicate, even when diluted with five times its weight of clay as for the control of blister beetles, will cause injury under some conditions. Cryolite applied at the recommended dosages is normally tolerated by most plants, but corn is particularly sensitive to this material as well as to other fluorine compounds. Sodium fluoride should not be used as a plant insecticide.

Soap sprays, especially when used at high concentrations, will injure the leaves of such tender plants as young cabbage or cauliflower in seed beds, or garden peas and young beans, as well as many tender ornamental plants.

(Continued from Page 40)

DISOWNED OR ORPHAN LAMBS

should be confined together in a small pen or the ewe placed in a stanchion, thus permitting the lamb to nurse frequently.

Orphan lambs may be raised on cow's milk. Rather than add fat or sugar to imitate ewe's milk, it is best to feed cow's milk unaltered. Milk from a cow which has recently freshened and is giving rich milk, is preferable. The milk should be fed at body temperature and in small amounts. As a rule, 2 tablespoonfuls of milk fed every two hours the first day, is sufficient for a newborn lamb. As the lamb gains in strength, the amount of milk may be increased, until at 2 or 3 weeks of age, 6 ounces of milk fed 4 times a day is sufficient.

Hurdle Mills, N. C., Dec. 5, 1944

I fertilized my 1944 tobacco crop with Royster Golden Weed at the rate of 1000 lbs. per acre. Yield—1570 lbs. of leaf to the acre. This tobacco sold for an average of $746.00 an acre. Royster's has always given me top results under tobacco.

WILLIE HORNER

ELECTRIC REFRIGERATOR "TIPS"

The refrigerator should be defrosted before frost gets one-quarter inch thick.

Keep all foods covered. Frost forms from moisture evaporating from uncovered foods. Acting as an insulator, it slows down the cooling of food and increases freezing time.

Follow manufacturer's instructions for defrosting. And never chip frost off with a knife, etc.

Thoroughly clean refrigerator at regular periods. For the inside, use a tablespoonful of baking soda in a quart of warm water as a "wash," after which go over the interior with a soft cloth wrung from clear warm water. Dry thoroughly. Wash all shelves and food containers with soap and water; rinse in hot water and wipe dry. For the outside, use mild soap and warm water; rinse and dry.

Always wax and polish synthetic enamel finishes after each washing.

SOMETHING ABOUT STRAWBERRY CLOVER

Strawberry clover is principally a pasture plant, though it may be used as a green-manure crop, particularly on soils where salinity prevents the growth of other legumes. It is very palatable and is as rich in animal feed units as white clover.

When the plants are grown on saline soils the composition of the vegetation is somewhat higher in minerals than when they are grown on salt-free soils, but all available reports have indicated that animals have not been injuriously affected from grazing it. Like other legumes, strawberry clover may cause animals to bloat and necessary preventative measures should be taken. All types of animals and poultry have grazed strawberry clover with good results.

Strawberry clover will survive under close grazing similar to the low-growing forms of white clover, but it may be more productive if grazed moderately. Close grazing, on the other hand, will reduce the number of many of the other less desirable plants and in that way will encourage the spread of the clover and the development of a good pasture turf. It has been grazed continuously from early spring until late in the fall without affecting the stand, although rotational grazing would probably favor greater production. With an increase of the salt concentration of the soil to the point where growth is inhibited the advisable practice is to remove the animals until the clover makes additional growth. Close grazing in late fall is not recommended.

Farmers who have used large acreages for grazing claim that on similar soils the carrying capacity of strawberry clover is far superior to that of other pastures. Many claim that one acre will carry from one to two cattle through the entire growing season provided growing conditions are favorable.

UPKEEP OF FENCE IMPORTANT

Maintenance is an important item to consider in choosing a fence for a given condition. The total cost of fencing includes interest, repairs, depreciation, interest on the land occupied by the fence row, and the cost of cleaning fence rows and keeping down weeds. Cheap materials and cheap construction lead to high cost of maintenance and a short-lived fence. Annual depreciation of fences lasting 20 years is only 5%, whereas if the life of the fence is 15 years the depreciation is 6.6%. In permanent fences good grades of material and good workmanship are cheapest in the long run.

Spring and fall are the most favorable seasons to inspect fences, drive down posts heaved by winter frosts, repair, relocate or abolish fences. In moving a fence line the removal and re-use of the wire or disposal is often a problem. Old barbed wire may be rolled on old barrels. Wire that is unsatisfactory for re-use may be placed in ditches or fastened to stakes to decrease soil erosion, but in any case should not be left in fence corners or any place where it may be a menace to livestock.

The re-use of fence posts in relocating fences is often determined by the difficulty of removing sound posts. While post pullers may be purchased, a tractor or team of horses with a chain and pole is often used with success.

It is always helpful to have the highway fence lines seeded to grass or hay crops which will keep down weeds and can be mowed easily. Many farmers plow a strip several furrows wide along the fence line as a fireguard.

Marathon, N. Y., July 6, 1945

To see just what Royster's would do, I tried it out on potatoes alongside of three other popular brands used in this section. I used the same analysis of each make and the same rate of application—all receiving the same cultivation, spraying, etc. The vines stayed green at least a week longer on the Royster fertilized rows and produced more marketable potatoes per acre. FLOYD C. SLOCUM

WHEN PLANNING THAT HOME ORCHARD REMEMBER . . .

The home orchard will not take care of itself and produce satisfactory fruit. A certain amount of work in pruning, training, cultivating and fertilizing is necessary for success. Still more important is spraying to control insect pests and fungus diseases.

The ideal fruit garden or home orchard should contain several different kinds of fruit, represented in many cases by a considerable number of varieties, ripening one after another over a long period. Large yields, good shipping quality and attractiveness in appearance may be made secondary to high dessert quality or special excellence for culinary purposes.

If the fruit garden is planned carefully and is not too restricted in size, it may be made to supply fruit continuously throughout the year, in the fresh state, canned or otherwise conserved. Whether long-keeping winter apple and pear varieties should be included in the planting will depend, at least in part, on the facilities available for storing the fruit.

Good nursery stock of suitable kinds and variety is fundamental to success in fruit growing. And the selection of varieties should take into account the likes and dislikes of the family as well as the adaptability of the varieties to the conditions.

It is difficult to describe good nursery stock. A good root system is essential. A tree or bush, as a rule, should have several main roots and many smaller ones when received from the nursery. All trees as received from the nursery should bear a State inspection certificate indicating freedom from disease and insect pests. Only plants or trees that have made a strong growth in the nursery should be planted. Plants making weak growth in the nursery are likely to show lack of vigor when planted in the orchard.

Every reasonable precaution should be taken from the time the trees and other plants are dug in the nursery until they are planted to prevent the roots from becoming dry. If trees and other plants are received packed in bales or boxes they should be unpacked promptly, unless they are to be planted without material delay. If the plants are to be set soon after being received, almost any temporary means of protecting the roots so that they will not become dry will suffice. Wet gunny sacks, an old horse blanket or some other material that has been thoroughly moistened, if spread over the roots, will serve the purpose.

If it is necessary to delay planting for any considerable time, the trees should be heeled in. A trench is opened of sufficient size to receive the roots. If the trees are tied in bundles, they should be loosened and the roots separated when they are placed in the trench so that the soil can be worked in among them readily and packed rather firmly, thus largely excluding the air; and, finally, enough soil should be heaped over the roots to prevent their drying out. In this way the stock can be held in good condition for any reasonable length of time, but the planting should be done before the buds start into growth in the spring. If plants appear to be very dry when received, the roots should be soaked in water before being planted, particularly if the soil is dry.

IT PAYS TO SOW GRAIN EARLY

It is well known that grain sown early will produce the largest yields. Oats, for example, may be sown as early in the spring as the soil will permit, and demonstrations have shown yields amount to 10 to 15 bus. more per acre when sown early as compared with that sown late.

Barley should not be sown when there is danger of heavy frost as it comes up, but it should be sown as soon as the soil is warm enough and the weather is such that it is reasonable to expect no heavy frost. In sowing barley early about the same results may be expected in increased yields as from sowing oats early. Clean seed and treat it for smut. No operation pays better than cleaning all grain for seed, eliminating practically all the weed seeds, and then treating it to destroy the smut, for it is well known that smut very often claims 10% to 15% of the crop. — Hoard's Dairyman.

R3, Wetumpka, Ala., July 2, 1945

It's a pleasure to use Royster's because it is so easy to put down—you always get such an equal distribution. Royster's is so dependable, too—I feel that when I use it I get a better yield, which means more money from my crops. My 1945 cotton crop of 15 acres was fertilized with Royster's 4-10-7, 500 lbs. per acre, and I feel sure I'll pick at least a bale to the acre. J. A. VARNER

ORSES AND HARNESS INJURIES

Common injuries are galling, sore neck, shoulder abscesses and muscle sprains.

Tender skin is caused by working young horses too hard, failure to clean leather surfaces in contact with skin, sweat pads rough, lumpy or soaked with sweat, too much weight on neck or back and hard work on rough ground. Treatment: Adjust harness to fit the horse, buy collar to fit horse and use no other on him. Adjust the hames to fit collar. Use hair-stuffed sweat pads; keep sweat pads clean. Change them at noon.

For Tender Skin: Bathe galled parts noon and evening, using cold water or a mild astringent wash such as the following—4 oz. lead acetate, 3 oz. zinc sulphate and 1 gal. water. Shake well before using. Avoid too heavy or steady work at first.

Shoulder Abscess: Open and completely drain. Maintain drainage for pus until abscess cavity has filled completely. Do not work animal.

Shoulder Sprain: Give immediate attention. Complete rest is the best treatment.

"Sit Fast": Requires immediate treatment or a complete removal of the diseased tissue.

GET THAT BEAN AND PEA WEEVIL!

Beans, peas and cowpeas are often damaged seriously in storage and in the field by weevils.

A large percentage of the initial infestations occurs in the field, where the parent weevil lays her eggs on or in the pods. The grubs, upon hatching, burrow into the seeds by gnawing a hole no larger than a pin-prick. This entrance hole is usually not observed; hence the often expressed erroneous belief that the adult weevils that eat out from the seed, leaving behind a round hole about one-sixteenth of an inch in diameter, have "developed from the germ."

The most injurious bean and cowpea weevils in the United States can breed generation after generation in dried seeds in storage. During the hottest summer weather one generation requires about one month for development. Female weevils may lay as many as 50 to 58 eggs a day, though the average total number of eggs laid by an individual during her life is about 100. Infested seeds in bulk usually heat, thus producing temperature and moisture conditions most favorable for the rapid development and vigorous breeding of weevils.

Lacrosse, Va., November 13, 1944

I had 7.2 acres of tobacco this year fertilized with 1000 lbs. of Royster Golden Weed per acre. The tobacco from this crop weighed 10,752 lbs. and sold for $4,372.00, averaging 1493 lbs. to the acre and netting me $607.22 an acre. Royster's always grows a finer crop for me than other makes—that's the reason I expect to continue using and recommending it to my friends. J. E. HALL

Infestations in beans and peas can be quickly and effectively stamped out by fumigation with any of the fumigants commonly available, or by means of heat or cold storage. Weevils can be prevented from breeding in storage by mixing dust or air-slaked lime with the seeds.

For the direct control of the pea weevil, apply dust mixtures containing 0.75% of rotenone to canning and garden peas—and, where practicable, to peas grown for seed—within a few days after the peas start to bloom.

In brief: Plant weevil-free seeds, harvest as soon as possible, treat to kill weevils and store where seeds can be protected from re-infestation by weevils spreading from infested seeds.

THE "ABOVE-GROUND" SILO

To provide for low depreciation and to keep down spoilage of silage, the "above-ground" silo must have certain construction features. For instance:

The walls should be airtight. In wood silos the lumber should be well matched and contain no large knots. Doors must fit tightly.

Wall should be smooth and plumb and circular in form for structural strength and to permit free settling and packing of silage to avoid air pockets. Square, hexagonal or octagonal silos are sometimes made when farm-cut lumber is used but are not recommended.

Walls should withstand considerable lateral strain without cracking or bulging. Lateral pressures increase directly with the depth of silage and vary with the kind of silage stored. The deeper the silage the greater the average capacity per foot of depth. The higher the pressure the more air is squeezed out and the less spoilage.

Exterior wall surfaces should be protected where necessary to retard weathering or decay.

The foundation must be well drained and of ample size and strength to support the load and to avoid uneven settlement and cracking of the walls.

The silo should have a chute to facilitate feeding, and a safe ladder giving access to the filling door.

A roof is desirable in regions of heavy snow or rain or extreme cold.

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